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ABSTRACT

An effort to develop a classification of various kinds of disadvantegement is aimed at the efficiency that can be gained by providing only those services to those clients who can use them in order to increase their chances of successful placement. The report details some of the elements of the recommended approach: analysis of manpower situations in terms of inputs to clients and process objectives; identification of those client responses which delay or preclude achievement of those objectives; and construction of a classification of strategies for dealing with such "ineffective" responses so as to facilitate goal attainment. The proposed classification scheme is illustrated, and its potential for efficiency of service and staff accountability for goal achievement is discussed. Finally, the report discusses characteristics of an organizational structure for manpower agencies necessary for implementation of the scheme, and the research questions which must be answered to operationalize the system. (Author)

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Manpower Science Services, Inc.

Research and Development in the Social Sciences

A SYSTEMS APPROACH TO A TAXONOMY OF DISADVANTAGEMENT

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April, 1973

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Summary

An effort to develop a classification of various kinds of disadvantagement is aimed at the efficiency that can be gained by providing only those services to those clients who can use them in order to increase their chances of successful placement. There are three possible bases for such a classification: a trait basis, which is heavily dependent on the use of measurements (tests) to identify a client's traits, an historical/genetic basis in which clients are classified on the basis of various psychological consequences of early deprivation, and a behavior-in-situations (or systems) classification, in which disadvantagement is defined as an ineffective interaction between a client and the situations he/she encounters. These bases are reviewed, and the last recommended as the most promising kind of classification scheme for manpower agencies.

The report details some of the elements of the recommended approach: analysis of manpower situations in terms of inputs to clients and process objectives; identification of those client responses which delay or preclude achievement of those objectives; and construction of a classification of strategies for dealing with such "ineffective" responses so as to facilitate goal attainment. These strategies may be directed at alteration of the situation characteristics and/or the interest, capability, and/or expectancy determinants of the client's response.

The proposed classification scheme is illustrated, and its potential for efficiency of service and staff accountability for goal achievement is discussed.

Finally, the report discusses characteristics of an organizational structure for manpower agencies which appear necessary for implementation of the recommended scheme, and the research questions which must be answered to make the system operational.

The major recommendations are presented in Chapter III and following chapters. Those preceding Chapter III are heavily technical and theoretical, and may be skipped by the reader more interested in the substance of the recommendations than in the reasons behind rejection of other alternatives.

Preface

The initial objective of this project was to develop a taxonomy of disadvantagement.

We began by attempting to identify common characteristics of the disadvantaged and to categorize these characteristics in some orderly fashion so as to make these categories useful for diagnosis and placement of disadvantaged clients in manpower agencies. However, we quickly discovered that disadvantagement is a very elusive concept that defies definition solely in terms of characteristics of persons. Disadvantagement is obviously not any one thing but rather a multiplicity of interacting variables. Finally, we concluded that attempts to categorize people into various "types" of disadvantagement would prove to be a non-productive venture, so far as providing services to individuals is concerned.

Therefore the focus of this report shifted from looking at client characteristics to developing a system that considers the interactive effects of situational processes and specific client characteristics. Specifically, we have attempted to provide a scheme whereby counselors and other manpower agency workers can 1) state the objective of each agency process; 2) assess the relationship of elements in that process to client characteristics, so that 3) interactions which may interfere with the accomplishment of the goals of that particular process may be reduced or avoided.

In effect, then, we shifted from an approach to assessment of types to an assessment of behavior-in-situations - especially those situations relevant to getting and keeping employment.

This report is essentially conceptual and is intended to be a "think piece" to provide a framework for looking at different models for the delivery of services to disadvantaged clients. The proposed scheme is based on knowledge in the area of vocational guidance, observation of operational sites, and existing manpower research. The validity of the proposed scheme awaits additional

work toward operationalizing the ideas proposed in this report. We are hopeful that this document will at some future date move from a conceptual piece to an operational plan.

CHAPTER I

Introduction

A. "The Disadvantaged" as a Group

The employment problems of the disadvantaged have usually been defined in psychological and sociological terms. The analyses and descriptions resulting from this approach have served as guides to the development of services to increase the employability of the disadvantaged. Uncritical application of normative data has led to programming of the disadvantaged as a relatively homogeneous group, distinct from the "mainstream," and has led manpower policy to focus on group needs. The outcome of this approach is the multiplicity of specialized programs, each with its own eligibility criteria and set of mandated services. Accumulated experience in the operation of services and programs for the disadvantaged suggests that viewing them as a homogeneous group is not effective in reaching a large segment of this population, and can be counterproductive: 1) the majority of individuals do not fall at any statistical mean, and many are therefore likely to be turned off by services appropriate only to those at the mean; and 2) local service providers, recognizing that the mix of services available in any particular program do not always "fit" a particular client, have become adept at the use of subterfuge and indirection in getting clients into the "right" program, often violating program guidelines and confusing efforts at monitoring for accountability.

B. Individualization of Manpower Programming

Programming for the disadvantaged is now ready to move with confidence into a more detailed individualization of services. This is clearly the direction in which manpower agencies are mandated to move. According to the Manpower Report of the President (1969), Concentrated Employment Programs (CEP) have the objective of providing a "wide range of . . . services on an individual basis" (underlining added).

This is not to suggest that disadvantaged clients should be serviced entirely on a one-to-one basis. While such a relationship may be desireable for some objectives, it would undoubtedly prove inefficient, economically unsound, and inappropriate for other purposes. It is, however, equally inefficient to behave as though disadvantaged persons present a single set of characteristics or needs to be serviced en masse. For example, almost all CEP orientation and assessment programs and many WIN programs include lectures, discussions, or other procedures designed to improve the personal hygiene, grooming and money management of disadvantaged clients. Many also include instruction in the "world of work" with specific attention to employment tests and employment interviews. These content areas are uniformly included because they supposedly approximate the needs of "typical" disadvantaged clients. Yet it is clear that not all disadvantaged clients have these particular needs. While perhaps more disadvantaged than non-disadvantaged do need guidance regarding grooming (although we have found no data confirming this), most CEP and WIN participants do not, and become bored or insulted by sessions on grooming. It is for this reason that this report focuses not on characteristics that highlight typicality, but on those characteristics of disadvantaged clients that tend to call for more individualized agency programming.

By and large, manpower agencies do not tailor their programs to individual clients, except within the range permitted by the restricted availability of one-to-one counseling and the provision of a narrow range of choices among vocational and pre-vocational training programs. An analysis of those client characteristics that may impede the accomplishment of client and agency goals can help agencies make program decisions more appropriate to the needs and employment objectives of individual clients. Such an analysis would aid local manpower agency managers in establishing priorities among services, in guiding the in-service training of staff, in sustaining the progress of clients, and thus contributing to

an improvement in successful placement rates. Experience has shown that resentful and bored clients tend to drop out before they are ready for placement, or before a job can be located for them, or when a job inconsistent with their employment goals is made available to them. Clients thus become alienated from the only public agencies equipped to deal with problems of unemployment, and potential employers become disillusioned with the possibility of finding suitable employees through the public employment system.

One goal of individualization is increased effectiveness with reduced costs. The basic goal is to provide only those services which facilitate the achievement of goals, and to not impose programs on clients which do not contribute to placement objectives.

C. Individualization and the Structure of Manpower Agencies

A complicating factor is that agencies designed to serve the "disadvantaged" are as complex as the clients they help. The prevailing approach in the human service fields has been to analyze the target population when seeking ways to improve services. Since the agency-client relationship is an interactive process, any analysis designed to improve the effectiveness of services to the client should necessarily include analysis of the agency and how it is organized to meet its objectives. The success of an agency with disadvantaged clients depends in large measure on the characteristics of its organization, its internal decision-making processes, and the range of services it has functionally available. Even more pertinent to the problem is the question of whether the agency's organizational structure is one which supports individualization of decisions and services or tends to force staff activity into treating clients in a homogeneous manner. If a taxomony of disadvantagement is to be useful, it must be matched by a structure geared to recognizing properties of the client and his situation relevant to the criteria for classification, and of implementing a program appropriate to the classification

that is made. In short, flexibility in assessment, internal communications, and programming are required for a field utilization of a taxomony of disadvantagement.

D. Objectives of This Report

There are therefore two major objectives of this report: (1) to propose a model for classification relevant to the achievement of the occupational objectives of the disadvantaged; and (2) to propose agency operations and structures required for the implementation of the scheme. In addition, areas for further research and development will be suggested.

E. Organization of This Report

Chapter II presents a discussion of three possible bases for a taxonomy of disadvantagement: trait models, historical/genetic models, and behavior-in-situation models. Because of the level of statistical and inferential complexity to which the trait model has developed, the discussion in this chapter is long and fairly technical.

Chapter III presents the taxonomic model which we recommend for development. It is specifically designed for the manpower system; an illustrative sample of the scheme is presented.

Chapter IV returns to a more theoretical discussion of the role of assessment in the proposed model. At bottom, a taxonomy stands or falls on whether it can be used; if it does not lend itself to assessment, it cannot be used in practice with real clients. Therefore this chapter discusses the kinds of assessments which the model requires.

Chapter V recommends the development of an organizational structure for manpower agencies which is consistent with and supportive of efficiency in providing needed services to clients without the unnecessary provision of services that serve no useful purpose.

Chapter VI is a summary of the recommendations for further research and development which were made in the various sections of the report.

CHAPTER II

Alternative Models for A T xonomic Scheme

A. Introduction

One objective of this report is to propose a scheme for organizing client characteristics along dimensions useful to vocational decision-makers in manpower agency staffs.

The purpose of this chapter is to review alternative models and to evaluate them for their usefulness in the manpower field. Three alternative models will be reviewed: Trait and Factor Approach, the Historical (Genetic) Approach, and the Systems (or Behavior-in-Situations) Approach. These three models are the most widely used for generating descriptions of human characteristics, and have generated a considerable amount of research to test their assumptions and usefulness in practical situations. Although we came to the conclusion early that neither the trait nor the historical approach would be appropriate to the needs of the manpower system, we will present our reasoning in some detail so that the reader can understand why we recommend departing from these traditional approaches, in favor of an approach recently emerging from behavioral psychology, systems analysis, and ecological psychology.

Before presenting the available models, some general assumptions should be stated. Our guiding position is that any taxonomy is, at bottom, an intellectual construction or model for organizing phenomena. This view contrasts with earlier scientific notions that there is a latent structure in reality waiting to be uncovered, or that there is some naturally "right" grouping of characteristics that can be discovered. In popular thinking, the biological classification of animals, based largely on morphological considerations, is taken as descriptive of how things really are. Yet the same animals can be and are grouped quite differently in some classificatory schemes, such as those based on function (e.g.,

certain monkeys and frogs fall in that group of animals using suction-like pads on their appendages to grip vertical surfaces, while other monkeys and some lizards are sometimes classified together into another group describing animals which use prehensile tails for climbing). What is often overlooked is that the morphological classification "works" for some purposes (e.g., identifying common genetic elements), while other classifications may "work" better for other purposes. In like manner, we take the position that there is a limitless range of potential classificatory schemes which could be applied to "disadvantagement," and that the selection from among that range is based on strategy considerations arising from the objectives of the project. In short, utility of the scheme is the prime consideration in selecting a scheme for classifying human characteristics.

This means, of course, that there can be several different schemes in existence at the same time, even of equivalent power (in the sense of ability to make reliable classification decisions) but which differ in their form and contents, as functions of the differences in the objectives they serve. A social stratification taxonomy looks different from a psychological classification; they are both useful, but for different purposes.

This also means that evaluation of any particular scheme in terms of the extent to which it agrees with or looks like others in existence is irrelevant to the basic consideration of utility. For example, it would be irrelevant to criticize the functional classification of animals mentioned earlier because it separates into different categories species which are more closely related in the morphological scheme. Similarly, it would be beside the point to reject a scheme which groups certain disadvantaged people together because they don't look like each other, or because they behave differently in areas outside the range of considerations covered by the scheme.*

*See Kaplan (1964) for an extended discussion of the role and functions of models in social science.

To carry the matter a step further, we have come to the conclusion that a model which is useful for science, in which the creation of new knowledge is the objective, is not necessarily also the one which is best for practical purposes (i.e., in applying scientific knowledge). In a research project, the scientist hypothesizes in advance, but he cannot know in advance what the outcome will be. Thus he works forward from the known to the unknown. By contrast, in the world of scientific applications, one works backward from a defined objective to a consideration of the alternative ways in which that goal may be reached.*

More precisely, taxonomies of individual differences which are useful for creating new knowledge or human characteristics, are not necessarily useful where the objective is to provide services so that individual clients will reach identified goals. As Wiggins (1973) has put it: "A language need not be scientific to be useful; nor is a language necessarily useful because it is scientific" (p. 329).

B. Criteria For a Taxonomy of Employment Disadvantagement

This general position requires a specification of the criteria of utility. Briefly stated, for the purposes of this project a taxonomy should have the following characteristics:

1. Reliability

   The scheme should include criteria for assigning any disadvantaged client to a category in the scheme reliably (i.e., different workers would make the same assignment if they followed the same rules).

2. Usability

   Use of the scheme should not require training, judgement, or equipment resources that go beyond those that could

*Havelock (1971) makes this distinction clear in his presentation of various models relevant to the utilization of scientific knowledge.

be reasonably introduced into existing manpower agencies with their existing and potential staffs. This implies a preference for a conceptual structure as close as possible to those currently used by manpower agencies, so that extensive resocialization or training of staff are not required, and to avoid having the recommended scheme seem so foreign to the prospective users that they reject it out of hand.

3. Practicality

The elements of the taxonomy should relate as closely as possible to the range of decisional alternatives which could be available or developed in the existing manpower system. An efficient scheme would be one in which the same employability development activities would not be applied to individuals in more than one category; if two categories are functionally equivalent, in that they result in the same employability development activities, they might as well be collapsed into one. In short, the existing and foreseeable "state of the art" of intervention strategies in employability development sets the limit on the fineness of the categories to be included in the taxonomy.

4. Ethicality

The scheme should not require access to information or intelligence about a client beyond the range which a public governmental agency can normally inquire into. The scheme should be useful without requiring manpower agencies to invade privacy as a precondition for effective service beyond that which the client would normally permit. In short, the scheme should require minimum confidential information, in order for the scheme to be reliably and effectively used.

5. Efficiency

The classificatory activities called for by the

scheme should be efficient in time. Use of the taxonomy should not require any significant delay in the client's achievement of his occupational objectives in order to carry out the assessment/ classification task.

The three models of taxonomies currently available in the field of individual behavior may be assessed by reference to these criteria.

C. Trait Classifications

"Traits are organized dispositions within the individual which are assumed to have some generality in their manifestations across a variety of stimulus situations." (Wiggins, 1973, p. 320)

In a trait approach, an effort is made to locate, identify, or define some characteristics of persons which reduce an array of superficially different behaviors to some common structure or variable. The trait is thus said to "account for" many different behaviors by positing some relatively enduring disposition. Inasmuch as the trait is not simply a name for any particular act by the person, it is an inference derived from more or less systematically noting commonalities among selected acts (Loevinger, 1957). Thus, at bottom, traits are hypothetical constructs which can be known or identified only by indirect means (e.g., repeated observations over time, observations of a variety of concurrent acts, observations of acts in a variety of situations, or in the presence of a variety of observers).

It therefore follows that an essential element of a trait is that the attribute of persons named by the trait is generalizable across actions, situations, time, and/or observers.

Actually, it is no great trick to group people into classes, according to rules which identify the criteria for including an individual from each class (i.e., "tall" if x standard deviations above the mean height of comparable people; medium

if within $\pm$ x standard deviations, etc.). Thus there have been many studies of assumed trait dimensions which may characterize the class or classes of disadvantagement. Among those traits which have been most popular in the psychological literature of disadvantagement are: verbal vs. motoric style; extended vs. restricted linguistic code; tolerance for delay of gratification; internal vs. external locus of control; role-taking ability; ego and superego strength; sex anxiety and identification; agressiveness; self-concept; identity (Gordon, 1968). Within the manpower field, often-mentioned traits include dispositions toward lateness, inappropriate dress, passivity, hostility toward supervisors and authority in general, unreliability, low achievement motivation, etc.

Other less overtly psychological bases for classification, such as race, ethnicity, income, education, etc., are also relevant to manpower program design, techniques of service delivery, selection and differential assignment. In manpower service agencies, these bases for classification are treated as attributes of persons and, like psychological traits, are assumed to account for a variety of different behaviors. That is, they are assumed to include or be associated with behavioral dispositions which generalize across (or are manifested in) various actions, situations, time, and/or observers, that have significance for manpower development.

There are thus a variety of traits and bases for trait attributions which can be and have been used to characterize disadvantaged people. Many of these have been useful in research which seeks to generate new knowledge concerning the behavior and/or psychological dynamics of disadvantaged people.

However, the real trick is to group people on trait dimensions <u>in a way that is useful for prediction purposes</u>. That is, do the groupings or the trait attributions (whether done by observations, peer ratings, the use of common language, or by formal instruments) enable one to make predictions of

important events in the work of a manpower agency? If so, traits may be useful for a taxonomy of disadvantagement. If not, other bases for a taxonomy may be better.

In order to evaluate how useful a trait approach is, we need to examine two issues: the logic of prediction for differential treatment in the manpower field; and issues of validity of the technical means available for making trait attributions (e.g., tests).

1. The Logic of Prediction: Theoretical Problems

There are two possible uses for a trait-oriented taxonomy of disadvantagement in manpower service delivery:

a. To predict some relatively global outcome of services (i.e., placement success). In its simplest form, this use assumes that the service(s) is more or less the same for all clients, but that it produces or leads to differential performance on some criterion of placement success. "Placement success" is itself a composite of many events which may or may not be intercorrelated (choosing a job field in which there are open jobs; locating the open jobs; passing the employer's screening; going to work; working effectively - itself a composite of both job skills, and other behaviors in relation to time, money, persons, and self which Fine calls "adaptive skills"). As Wiggins (1973) points out, when one attempts to predict a criterion which is as global and composite as "job success," one must either use global traits, or a great many traits.*

*These alternatives come down to the same thing: in practice, the only way to make a global trait attribution is by multiple observations - across acts, situations, time, and/or observers. Thus one is really making a number of sub-trait attributions, such as level of skill, tendency toward lateness, interpersonal relations, work attitudes, all of which presumably play a role in the composite of "placement success." Each of the sub-trait attribtions which comprise a global trait could just as well be thought of as a trait in its own right. There is thus no operational distinction between using a global predictor trait composed of sub-trait attributes, or a great many less global traits, when attempting to predict a global criterion.

b. To design different services for different clients so that they all (or as many as possible) achieve comparable "placement success." In this case, the outcome of services is intended to be more or less the same for all - success - and the services are varied for different clients. This describes a situation in which there is no selection ratio (that is, 100% of the clients are treated in one way or another). This is an assignment situation, where the prediction question is: which traits predict placement success as an outcome of assignment to a, b, c, ...j treatments, or any combination thereof?

In the manpower system, where all applicants have equal rights to services (which may range from simple referral to extensive employability development), this second use - differential assignment - appears to be the more appropriate one. In this context, the first use described above is really a subset of differential assignment. Where the use described in a results in a prediction that an individual will fall into the group of unsuccessful placements after some more or less standard agency service (such as "direct referral"), the likely next step would be to ask whether there is another agency treatment (such as some form of employability development) which would work in such a way that the prediction would change: that an individual in trait group A will fall into the class of "successful" rather than "unsuccessful placements." Thus in practice, prediction is used for differential assignment.

In this context, the taxonomy problem is one of finding those trait constructs which will permit efficient and useful prediction of differential assignment outcomes.

There are two logical problems in achieving this objective: it is difficult to implement a decision theory model for assessing the utility of various prediction strategies and techniques; and there is an inherent contradiction in efforts to design alternative services to achieve "placement success"

when there are concurrent efforts being made to change the conditions or criteria by means of which an individual is put into the class of "successful placements."

a. Problems in using a decision model

The problem of validity of any set of traits for differential assignment is one of discovering whether use of the traits results in more effective assignment to various "treatments" than use of other traits, or use of no traits at all. "Effective" means that assignment to one or another (or some combination) of "treatments" increases the likelihood of a "successful placement" outcome.

In order to answer this kind of question fully, the decision-maker (the one who must decide which treatment to give to a particular individual) needs to know a good deal more than a correlation coefficient describing the relationship between a set of observations, such as a test score, and some criterion of success. Developments in both scientific management and psychometrics in the past two decades have focussed on questions of cost/benefits analysis (in the language of psychometrics, utility theory). Given the cost of using trait attribution procedures, what is the pay-off for increasing the probability of effective differential treatment (as defined by placement success)? Wiggins illustrates the question by comparing the potential costs and benefits of correct differential assignment of people to jobs as airline pilots vs. steward(ess). The "cost" of assigning someone without the necessary traits to a job as pilot is incomparably greater than the "cost" of assigning someone without the necessary traits to a job as steward(ess). Thus, even though a predictor may have identical correlations with the criteria (success as a pilot; success as a steward(ess)), it may be more worthwhile to use it to predict pilot success than steward(ess) success; in the case of pilots, even a small increase over chance accuracy produces a large change in the cost/benefit ratio (or utility), while

in the latter, such a small increase over chance may simply not be worth the costs of the research and testing necessary to construct and use the predictor, especially as a "wrong" prediction for the steward(ess) has only minor consequences.

When trait attribution is used for real world purposes (e.g., for assigning individuals to programs) rather than research, usefulness should be evaluated by an examination of the consequences of correct and incorrect classification of individuals, rather than simply by a measure of validity.* Each time a trait measure is used, some individuals are accurately predicted to "fail" on the criterion (i.e., to fall into the group of low success), others are accurately predicted to fall into the "pass" criterion group (i.e., successes), some are incorrectly predicted to pass, and some incorrectly predicted to fail. The costs of each of these kinds of outcomes can be evaluated, and compared with the costs of random assignment, or of assignment on bases other than the traits in question (e.g., self-selection). While any measure with validity greater than zero will produce more correct predictions than chance, it is quite possible that the benefits of correct outcomes may so minimally offset the costs of incorrect predictions (i.e., the value to the agency or the client of a correct prediction of success may be relatively modest in pay-off, while an incorrect prediction of failure may have great costs to the agency or client) that the expense and burden of using the traits as predictors are not worth it.**

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*The consequences of wrong predictions in research, compared to the real world, are minimal. As Zetterberg (1962) points out: "If a wrong decision is made and a scientific mistake is published, the worst that can happen is that someone points out the error in a subsequent publication and the erring scientist stands corrected.... In short, mistaken decisions have little consequence in the world of science; in that sense it is a gentle world." The world is hardly so benign to a manpower client for whom a prediction of job failure would have been wrong, had he been referred to the job anyway.

**Dropping out of a program because of refusal to submit to testing, or a fear of testing, occurs quite often in manpower agencies. This loss of clients must be considered as one of the costs of testing.

Even then, there are other considerations. There is a base rate for placement success in the population of disadvantaged persons - rather a high base rate on an absolute scale, though lower than is desired. Meehl and Rosen (1955) point out that tests should only be used on populations which are similar to the validation sample in base rates. Where the base rates are different, it is not legitimate to generalize the validity coefficient. In any case, a predictor must do better than the base rate, and that marginal increase must be worth the cost of the testing. Wiggins (1973) cites an example of a predictor with a validity $\emptyset = .18$; if such a measure were used to identify brain injured patients for surgery, under certain base rate and selection ratio assumptions, 78% of the patients would be operated on, but 90% of the patients in need of the operation would not get it (i.e., the false negative predictions).

In considering the utility of developing a trait classification scheme for differential assignment of disadvantaged clients, a large number of cost factors must be taken into account: the costs of research and development of instrumentation or procedures for attributing traits to clients; the costs of training agency staff members to use the procedures; costs to the clients, and to the agency in time devoted to the assessment/assignment process, etc. All of these costs must be compared with the costs and benefit <u>increments</u> of correct vs. incorrect assignment of individuals to each of the available "treatments," before a decision can be made that a test of a certain validity is required for an agency seeking to maximize its effectiveness.

Is it possible to find some way of measuring the utilities associated with the various possible outcomes for each differential "treatment" decision? Theoretically, it is possible to measure such utilities, but in practice, this kind of measurement is largely beyond the state of the art, except in industry where dollars serve as a useful metric. The problem

in non-market oriented human services is that dollars do not seem to be an appropriate metric for consequences having to do with human lives and how they are spent, but there is no other metric for the utility of life-options which can also be used to measure input costs.

In effect, then, we have the following situation: use of traits as a basis for differential assignment to manpower agency treatments cannot be adequately evaluated (even if there were an agreed-upon set of traits which could be measured or observed) because simple correlations with criteria cannot give an estimate of the cost/benefit of using one particular set of traits vs. using any other set of traits vs. not using any traits for prediction purposes. In the absence of precise methods for evaluating cost/benefits of a trait taxonomy, subjective estimates will have to be used; these will be discussed later.

b. Inherent contradiction

Manpower agencies do more than provide services to applicants. There is another arm of manpower policy which operates to change employer definitions of an acceptable employee. It is clear that there are at least token Blacks, Chicanos, and women in jobs where they had not been for some decades. The provision of incentives to employers to hire the disadvantaged, equal opportunity plans, hometown plans, and a variety of other programs as well as simply a change in the zeitgeist appear to move in the direction of changes in the criteria by which an individual falls into the "successful placement" group. While such changes may be very slow, they are perceptible to some observers.* In any case, it is certainly

*For example, in a paper by Alan Janger and the discussion of it by Jesse E. Gordon at National Graduate University's conference: Improving Employability, June 1-2, 1972, Washington, D.C., to be published by Praeger, the point is made that change in the character of the work force available for routine industrial jobs may be responsible for a trend toward broader company definitions of acceptability of candidates for employment.

true that one thrust of job development is to convince employers that potential workers defined as disadvantaged are capable employees despite their inability to meet certain hiring and retention standards (high school diploma, styles of dress, beards or afros, etc.).

If such present efforts or possible expansion of related efforts are successful, we will be in a position in which the criteria for classification as a successful placement are changing. In that case, it makes little sense to adopt the current conditions for hiring and retention as a criterion against which to evaluate a set of traits as predictors of the criterion. Given the relatively long turn-around time in such research, it is likely that by the time any set of predictors were validated and then diffused and operationalized in agency practice, the criterion will have changed, thus shrinking whatever validity had been achieved, and raising the costs of use of the predictors by the additional cost of continuing failure to refer workers who meet employer's new criteria.

As a perhaps frivolous example, there was a time only recently when an applicant with an afro (or a beard, long hair, or other hirsute expressions of counter-cultural dispositions) stood little chance of being a "successful placement;" he would not have been hired, and if hired, stood a good chance of being discharged as a result of hassles with supervisors and/or coworkers with hostile reactions to the meaning of such hair styles. Yet today there are many new employees with such attributes; these styles have won acceptance (or become so ubiquitous that employers could no longer maintain the exclusion). Had some attribute associated with counter-culture hair style been identified as a potential predictor just a few years ago, it would no longer be effective by the time its use was fully implemented in the field.

In short, it is contradictory to attempt to identify traits predictive of placement success after services (or as

a basis for developing services which will lead to placement success) when the criteria for placement success are changing naturally and being changed by manpower policies and services.*

c. Summary

To summarize the discussion thus far, it has been argued that efforts to establish a trait-based taxonomy of disadvantagement are theoretically not useful, or more precisely: their practical utility cannot be empirically determined. In order to evaluate the pay-off for using traits to make differential assignment of clients to treatments (or to design services for different client groups) in order to increase the probability of successful placement, there would need to be: 1) a stable set of criterial attributes for placement success; and 2) a common metric for measuring both costs and benefits (utility) of the various possible outcomes of the assignment of individual clients to particular services on the basis of the trait measures (partly a function of the measure's level of validity but also a function of base rates and selection ratios). We are thus led to the conclusion that we cannot know if assignment of manpower clients to agency treatments on the basis of traits is more effective than any other procedure (including random assignment).**

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*A less frivolous example is the situation regarding civil service tests as criteria for "successful placement" in state and municipal jobs. In many locations, these criteria are being changed, while some manpower agencies provide a "test readiness" service to clients in preparation for taking the tests. If some trait attribute had been identified as a predictor that assignment to a "test readiness" service would increase the probability of success on civil service tests in their traditional form, the predictor would by now be subverted by successful efforts to have civil service testing changed.

**In practice, the realities of manpower agency life are such that there is no true random assignment of clients to treatments. To some extent, there is self-selection by clients, quota-filling by the agency, and legislative and administrative criteria. Thus it would not be proper to compare trait-based assignment with random assignment; it would be more proper

If we cannot know the extent of benefits (if any) from using a trait approach to a taxonomy, we may at least guess at the matter, based on the record this approach has achieved. That record is intimately bound up with issues regarding the validity of tests. Ultimately, a trait approach has little but theoretical interest by itself; it is the operationalization of trait attribution, through measurement which links theory to any practical purposes. Thus the second issue to be addressed in evaluating the potential of a trait taxonomy is whether the track record of trait testing justifies any optimism.

**to compare trait-based assignment to "normal" agency assignment. There are two other related complicating factors. In the differential assignment paradigm (in which the basic question is whether assignment of all candidates to one or another treatment program is optimal), it is assumed that there is no selection ratio for the individual treatment programs. But in fact, in manpower programs there are limits on the number who can be enrolled in any particular service, these limits fluctuate depending on the vagaries of funding, and some assignment categories (such as "holding") are infinitely expandable. Thus while all candidates are assigned to one service category or another, the categories are not comparable with respect to selection ratios (i.e., the proportion of candidates who are selected for the program). This further complicates the problem of measuring the cost/effectiveness of using trait attributes as predictors.

The second complicating factor is that there may be different "values" associated with the outcomes of "correct" and "incorrect" assignment of clients to programs, depending on who is responsible for the assignment. When a client chooses a "wrong" assignment, he might evaluate the outcome less negatively than the agency might, and he might evaluate that outcome less negatively than if the same wrong assignment had been made by the agency. Such is the psychology of choice behavior and post-decision evaluations that the locus of the decision-making makes a difference in the value or utility associated with a particular outcome. In effect, then, it is likely that it would be better (in terms of utility) to allow clients to make their own wrong assignments than for the agency to make even somewhat fewer wrong assignments on the basis of trait attributes.

As indicated earlier, such an evaluation cannot be precise regarding cost/benefits, given the state of the art; we must rely on subjective estimates based on the track record.

2. Measuring Traits

Although there are many methods for attributing traits to individuals (e.g., peer ratings, controlled observations, self-report, etc.) the main formal method (i.e., other than uncontrolled observations and impressions) in applied settings is the use of tests.

In what follows, it must be clearly understood that the discussion refers to the use of test in clinical, industrial, and other real world practice. We are not discussing measurement per se, or the utility of tests in research. The history of psychology is to a great extent a history of advances in the notion that human characteristics can be measured. From the time of Galton's measurements of reaction time to the present, advances in scientific knowledge have depended on precise, reliable, and public observation (i.e., measurement). But one branch of the tree which grew from Galton added a twist; there was a shift from a direct measurement of behavioral attributes (i.e., reaction time) to an effort to infer from measurements an internal psychological attribute (or dispositional tendency) which is only indirectly or partially manifested in any particular behavioral act. Thus the study of measurement became also the study of tests of traits. It is the former, rather that the latter, which comes close to the heart of any definition of psychology as a science. Much of the defensiveness regarding tests, in response to mounting criticisms of test usage in the real world, springs from a failure to keep this distinction in mind, so that a criticism of applied trait testing is experienced as a threat to psychological science and to the use of trait measurements for research purposes.

The litany of complaints about testing is now a familiar one:

a. Reliability

In order to achieve validity by reference to a criterion which is measured at some point in time later than the predictor testing (e.g., in order to demonstrate a relationship between performance on the predictor test and later "placement success") the test must measure some characteristic or trait which is itself stable over time, so that the trait can be assumed to be operative at both times at which measurements are taken. While behavioral stability is not intrinsically necessary for prediction purposes, test-retest reliability is often used as a qualification for a test. The use of reliability over time has two consequences for trait tests in manpower agencies:

- It results in tests which are said to measure attributes which are not relevant to placement success. In this judgment, the assumption is made that the behaviors which account for placement success are often ephemeral, rather than some enduring dispositions. The need for reliability thus inclines test constructors to seek out those attributes which are marginal in importance to the situations with which manpower agencies deal.

- The tests which result are also said to measure those traits which are relatively impervious to experience. That is, those traits which are stable over time are traits which do not change very much as a result of experiences which occur during the time interval. Therefore, the tests do not deal with client characteristics that a manpower agency <u>can</u> change through its various services. Thus it would seem that traits would not be useful for assigning applicants to treatments, since the traits involved are those which are not responsive to change efforts, in order for the measurements to be stable.

b. Validity

Serious doubts have arisen about the validities of tests in common usage, especially with reference to disadvantaged populations. There is sufficient research to support the

empirical validity of many tests, in the sense of statistically significant correlations. On the other hand, there is also a good deal of equally respectable research which finds little or no validity (for example, see Kirkpatrick et al., 1968). In a situation where the evidence is so inconsistent, a rational observer must conclude that neither claims for nor against efficacy are adequately justified, and that the procedure under question is therefore not sufficiently well proven to warrant adoption.

It is further argued that where significant validities are obtained, they are typically too low to permit use in practice for differential treatment. Such tests may be useful for research purposes to identify samples of subjects, where the costs of wrong assignment of individuals to samples are costs to the researcher and not to the subjects, and are at best very modest.

Probably the most trenchant recent critique of the validity of trait testing is that provided by an extensive review of tests for the disadvantaged done for the U.S. Department of Labor by Human Interaction Research Institute (Backer, 1972). Although that report purports to find encouraging progress and potential for testing, a careful reading reveals that most of the test development efforts cited are negatively evaluated, and the one set of developments (by Educational Testing Service) which the report views optimistically finds its highest validity around .30, thus accounting for less than 10% of the criterion performance. Professional standards require validities much higher than that for real world use with vulnerable clients. Further, the common experience is that validity coefficients shrink rapidly after a test is in practical use.

This review of taxonomic strategies is not an appropriate place to analyze the possible reasons for the poor showing of trait assessment by tests. Among the typical reasons are

criterion problems (e.g., ambiguity; findings that job or placement success does not seem to be closely related to skill or other traits intrinsic to persons); dependence of test scores on the situational contexts in which the tests are taken (e.g., test-takers' stances change from the situation in which they are taking the test as validation subjects vs. situations in which their test performance has potentially positive or threatening consequences to the subjects); failure to validate on samples to which the disadvantaged can be legitimately compared, etc.

The most recent wisdom in industrial selection testing appears to be that tests tend to have only very specific validity, local to the particular job in a particular company. See Mayfield (1963) and Sparks (1970), who defend selection testing rigorously, but emphasize that the defense is valid only for tests which have been specifically validated for the jobs and work sites where they are to be used.

c. Generality

Problems associated with reliability and validity are, at bottom, problems of the generality of trait attribution (Wiggins, 1973): is the trait generalizable across situations, through time, across actions, and with different observers (or observation methods - a factor which confounds observers and situations)? As indicated above, it is our judgment that there is not sufficient generality of formal measurement operations to justify the use of such measurements in the real world, and that therefore a trait taxonomy (which depends in operation on the ability to measure the traits) is not a promising direction in which to move.

Other experiences associated with problems of trait generality are the extreme sensitivity of factor solutions to changes in the tests comprising the battery, and to changes in subject populations. A battery of tests produces

a different factor structure when they are administered to freshman students from what emerges when they are given to older college graduates. Similarly, different tests which purport to measure the same variables produce different factor structures. These problems create ambiguity about the traits identified by the factor solutions.

d. Proneness to misuse

The deceptive simplicity of tests contributes to a number of problems in their use. To many observers, these problems are endemic:

- Tendency for test scores to become self-fulfilling prophecies, in which reactions by significant people (teachers, counselors, etc.) to an individual are moderated by knowledge of the individual's scores, such that the test score brings about a state of affairs which would not obtain if the trait being measured were operating in the absence of knowledge about the score itself (Rubovits & Maehr, 1971). According to recent research (Rubovits & Maehr, 1973), the self-fulfilling prophecy is particularly likely to work against minority people.

- Tendency for trait-ascription scores to be perceived as <u>caused</u> by internal psychological events. Though basically this involves a circularity of reasoning (the trait is ascribed on the basis of the test, and is then seen as the <u>cause</u> of the test performance), the circularity is subtle, and escapes the notice of many workers in the field. The particular danger is that individuals are thus seen to "have" the trait under question, and thus to become the object of change efforts (if the trait is an undesireable one), even if other interventions might be more efficient. The common example is that of a minority person who scores high on a measure of "external locus of control" (i.e., tends to see external forces as relatively more influential in determining his fate than his own internal forces - thus relative powerlessness), a common

response to the trait is to use counseling as an effort to change the individual's trait position, rather than intervene in the external forces which are nonresponsive to the client. It is in this sense that the attribution of traits to an individual may mislead the intervention effort. Although not intrinsic to trait measurement, it is almost impossible to prevent people with run-of-the-mill training from falling into the trap of "making the victim pay."

e. Ethical and political issues

Any trait-oriented taxonomy of disadvantagement based on formal trait-attribution procedures would necessarily involve factors which are usually thought of as personality elements. This raise questions about the ethicality (and, since Griggs vs. Duke Power), the legality of using tests of low validity where differential access to jobs may be the consequence. It is unlikely that the public would tolerate a situation in which personality characteristics, even if of demonstrable validity, could be used as criteria for assignment to the services of a public agency.*

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*One of the authors had an instructive experience along these lines, when he used a scale derived from the MMPI in a government selection program. One of the items, "I believe in the second coming of Christ," has solid empirical support as a predictor of psychiatric disability, in the sense that a higher proportion of psychiatric hospital in-patients answers the item with an agreement response than non-hospital people. While the validity of the item is low, it is better than chance. Yet clearly, it would not be possible to exclude believing Christians from employment on the grounds of risk of psychiatric illness. It was obviously not easy to explain the presence of that item to an influential Congressman from a working class Irish Catholic district. The situation illustrates: 1) the inappropriateness of using tests of low validity (even if that validity is statistically significant and better than chance); 2) the impossibility of using personality variables in public agencies; and 3) the inadvisability of using a trait criterion where the trait bears only an indirect and partial relationship to any particular performance or action of the individual classified by the criterion.

The acuteness of the situation becomes apparent when it is considered that peer ratings are among the best predictors of performance success. Peer ratings generally have higher validities than more indirect trait tests, and in many cases, are better predictors than direct measures of skills and knowledge as individual attributes. The following paragraphs from Wiggins (1973) describe the situation:

> Peer ratings were first found to be of practical value in military personnel selection (Hollander, 1954a), and it is primarily in this area that they have continued to be employed. Within a military context, peer ratings have been found to be useful predictors of officer effectiveness (Haggerty, 1953; Hoffman and Rohrer, 1954; Tupes, 1957, 1959; Tupes and Kaplan, 1961; Williams and Leavitt, 1947), performance in flight training (Doll, 1963; Flyer, 1963; Flyer and Bigbee, 1954; Hollander, 1954b; Willingham, 1958), leadership (Bartlett, 1959; Kamfer, 1959; Robins, Roy, and deJung, 1958) and disciplinary problems (Klieger, deJung, and Dubuisoon, 1962).
>
> In other than military settings, peer ratings have found success in the selection of supervisors in industry (Weitz, 1958), in the prediction of teacher effectiveness (Isaacson, McKeachie, and Milholland, 1963), and in the forecasting of the performance of Peace Corps volunteers (Boulger and Colmen, 1964; Hare, 1962; Stein, 1963). A recent and somewhat novel application of peer ratings is to the prediction of academic performance within an educational setting, (Astington, 1960; Smith, 1967; Wiggins, Blackburn, and Hackman, 1969). For example, Smith (1967) obtained peer ratings on the Cattell-Tupes-Norman scales for 348 college freshman just prior to their first mid-term examinations. These scales, along with a battery of more conventional predictors, were used in an attempt to predict grade-point average at the end of the first year of college. In the entire sample, the conscientiousness factor (quitting versus persevering) correlated +.43 with grade-point average. Although the magnitude of this correlation may not seem impressive, it should be noted that none of the conventional predictors of grade-point average (Scholastic Aptitutde Test, Differential Aptitudes Test, Cooperative English Test, etc.) attained correlations in excess of $r = +.25$, and several tests had essentially zero correlations with the criterion.

> Although peer ratings have only recently been used in formal academic prediction situations, Smith's (1967) finding is not atypical. Wiggins, Blackburn, and Hackman (1969) administered a battery of predictors along with peer ratings to two groups of first-year graduate students in psychology at the University of Illinois. Correlations of .51 and .49 with first-year grade-point average were obtained with a single peer-rating scale marking Norman's (1963) conscientiousness factor, providing considerable generalizability to Smith's (1967) finding. Direct peer ratings on such qualities as verbal aptitude, quantitative aptitude, and performance on prelims were equally impressive predictors. Moreover, such peer ratings have been found to be related to faculty ratings of competence obtained after three years in graduate school. Again, for purposes of comparison, it should be noted that the highest correlation with grade-point average obtained with an aptitude predictor was .34, which was obtained with the Graduate Record Examination Psychology Scale (Wiggins et al., 1969).

Although there is some evidence that peer ratings include a large component of social acceptability, and reflect perceptual structures in the perceiving peer rather than (or in addition to) attributes of the persons being rated, this does not cast doubt on their validity. It can be argued that peer ratings may be valid precisely because the criteria, such as actual success in a job, are also loaded with social acceptability, and if the perceptual structures of peer raters are similar to those of the people who determine whether an individual is successful on the job (i.e., his superiors, supervisors, etc.), then the peer ratings will be good predictors of placement sucoess.* As Wiggins (1973, p. 372) puts it: "...one of the principle justifications for the development of predictor variables couched in the ordinary language of trait attribution" (i.e., peer ratings) "has been that criterion statements obtained from significant others

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*Unless, of course, the criteria of acceptability being used by superiors, supervisors, etc., are being changed through the efforts of manpower workers. See the footnote on page 20.

are typically stated in the same language."

The point regarding peer ratings as effective trait measures is this: despite their demonstrated power, it is unlikely that a manpower agency would be permitted to assign clients to services on the basis of clients' reputations with their peers, even if it were feasible to obtain such ratings. In effect, then, the more effective methods for trait attribution are closed to manpower agencies.

In summary, the social and political status of public manpower agencies puts them in a position in which the relatively better trait attribution procedures are beyond the pale, leaving as the only available methods those which are:

- of insufficient validity
- prone to misuse
- pertinent to client characteristics that are relatively impervious to agency interventions and programs, and thus of little or no practical use for differential assignment purposes.*

3. Evaluation of a Trait approach

We said earlier that the usefulness of a trait taxonomy should be evaluated on the basis of the costs and benefits of the kinds of classification decisions that would be made on the basis of the traits as measured. It was also indicated that these "utilities" cannot be precisely measured, given the state of the art, and so would have to be estimated subjectively. This brief review of the track record of trait testing for real world assignment purposes forms the basis for our estimates of utility, as follows:

a. We estimate that the costs of incorrect trait attributions are high, in leading clients to drop out because of the

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*Other critiques of the trait construct as a basis for real world assignment to services can be found in Bandura and Walters, 1963; Bandura, 1969; Greenspoon and Gersten, 1967; Kanfer and Saslow, 1965, 1969; Kanfer and Phillips, 1970; Mischel, 1968; Peterson, 1968; Wallace, 1966, 1967.

irrelevance of the program to which they are incorrectly assigned, in communicating to them a false perception of their "disability" or "needs," in alienating them further from the work world and its exchange mechanism, and in misdirecting efforts toward client change strategies even in those cases where the change could more effectively be obtained through intervention in the environment.

b. We estimate the benefits of correct trait attribution to be low, in that enduring traits have relatively little impact on actual placement success, compared to more ephemeral matters.

c. We estimate that the costs of formal trait attribution procedures (i.e., testing) are high, in the dropping out of clients who are afraid of tests, in the misuse of test scores as self-fulfilling prophecies, and in invasions of privacy. We also count the costs high of developing, validating, and implementing new tests, and training manpower agency staff to use them. Another unmeasureable, but in our estimate high cost of differential assignment on the basis of attributed traits, is the implied denial of the client's autonomy in making his own decisions about what he wants or needs, in an area of life having immense impact on the client, his family, and the community.

d. We estimate that the benefits of using a trait taxonomy are minimal because of the low validity of the available tests, especially with the disadvantaged, so that incorrect assignment is likely to occur frequently. We do not expect that validity can be improved to cost-effective levels because the criteria are global and generalized, and criteria characteristics and selection ratios change as a function of economic conditions and in response to manpower policies and job development efforts. We believe that placement success is at best only marginally related to stable client characteristics of the kind which are amenable to measurement

and to agency program efforts. Finally, we do not expect much improvement in validity in the future because past efforts over a long history of mental testing have not shown much progress, and because those trait attribution procedures which have shown promise cannot be used in public agencies.

e. Finally, we believe that grouping clients on the basis of common traits or attributes will not lead to the desired individualization of services as a means to greater manpower agency success. We come to this conclusion not only because of the high probabilities of incorrect assignment of individuals to groups, but also because within groups, individual differences not related to the common trait or attribute continue to operate. These individual differences will make the service or program which has been designed in terms of the common attribute inappropriate to the other, unrelated individual differences represented within the group. Thus, we do not believe that better groupings of clients will contribute very much to a greater potential for placement success. In short, we do not anticipate any significant increase in agency effectiveness in the ultimate criterion, placement success, to come about through the assignment of individuals to agency "tracks" or programs on the basis of a narrow range of common traits.

We can summarize these considerations about trait-based (and test-measured) taxonomies by reference to the evaluative criteria proposed in Chapter II of this report:

a. Reliability

Although trait test scores are fairly reliable over time, and thus permit decision-making which is less prone to the distortions to which human judgments are prone, we judge that the relevant client behaviors themselves are much less reliable. We also note that different clients are differentially affected by standard test administration methods

(which we have observed are much less honored in practice than is imagined), so that comparability of score interpretation from client to client is inappropriate.

In effect, then, we conclude that the generality of performances on tests is much more restricted than trait attributions acknowledge. We might also add that the evidence provided by Meehl and his coworkers suggests that the entry of subjective factors by staff members who make mental adjustments of score-dictated interpretations, in order to compensate clients for test-induced disadvantagements, reduce reliability to meaningless levels.

b. Usability

While test measures of traits are inherently simple to administer, other factors enter into a consideration of usability: client resistence to testing which is manifested in dropping out obviously makes tests unusable with those clients; manpower agencies are not in a position to use the most effective trait ascription methods (peer nominations and peer ratings) because of lack of access to clients' peers; there are no known associations between traits and intervention techniques or program options, so that a trait taxonomy does not seem useful in carrying out employability development programs. Finally, the relatively low correlations between traits and significant criteria suggest that predictive efficiency, represented as a percent increase over predicting the mean without tests, is not likely to exceed 5%, a percentage too low to be seen as useful.

c. Practicality

In addition to such limitations as the restricted range of agency ability to do anything about a client's trait structure, we would cite recent developments in federal guidelines for test usage, and the large number of cases being filed against both public and private users of tests, as suggesting that it would not be feasible for the Department

to sponsor measurement of personal characteristics as an implementation of a trait taxonomy.

d. Ethicality

Aside from the legal issues suggested above, we believe that inquiry into matters which are not closely associated with ability to perform work tasks would represent an unethical invasion of privacy and a denial of clients' rights to equal treatment by a government agency. As vocational psychologists, we also consider it unethical to ascribe greater weight to the cost/benefits achieved by an employer through test-based decisions than to the cost/benefits to the client. To the extent that traits might be used to track clients into "treatments" which may result in unequal access to the agency's job orders, there is the real danger that employers' benefits may dominate over client benefits.*

There is a further ethical issue: many trait ascription methods are dependent on the responding subject not knowing what is actually being measured by the method. That is, trait measurements (other than cognitive and motor skills, aptitude, and achievement measures) are usually disguised or at least non-obvious, because of the potential for a subject to bias his performance. Unobtrusive measures carry the logic to the extreme of preventing the measured individual from even knowing he is being measured. However, this subjects citizens to surveillance and/or to a deprivation of the right to give informed consent. Clearly, a client cannot give informed consent to providing information about himself when he cannot be permitted to know the true meaning of the information being

*This is a particular danger where false positives (i.e., incorrectly predicting success when the client would fail on the job) are considered more of a danger than false negatives (i.e., failing to refer a client, because of low scores, when the client would in fact be successful on the job).

collected. We believe that deprivation of informed consent is unethical in a public agency.

Overall, we feel that there are important ethical dangers associated with use of a trait-based taxonomy in a manpower agency.

e. Efficiency

We have discussed some aspects of efficiency under the concept of utility, and concluded that the utility of a trait taxonomy is low.

Other aspects of efficiency have to do with such matters as the use of client and staff time in trait ascription activities, the potential for addressing treatments to clients who "have" the traits when treatments directed at externals which determine the trait would be easier and more effective, and the potential of a trait taxonomy for wasting agency resources on treatments which are not essential for achieving placement objectives. A final potential inefficiency lies in the problem that client groupings, based on common traits, may obscure other relevant individual differences which would still require individual attention. Thus an objective of conserving treatment services by grouping clients would probably not be served by a trait taxonomy.

In sum, we believe that it would not be productive for the Department to pursue the development of a trait-based taxonomy of "disadvantagement."

D. Historical-Genetic Classifications

Trait attribution procedures as elements in psychological research are often criticized by those in real world practice for many of the reasons described above. Among the most persuasive objections raised by those in practice with individual clients is that important individual differences are subsumed within common traits, and that trait attributions are so stable that short-term changes in a client's outlook

or psychological status are not represented. Thus clinicians have been champions of dynamic historical-genetic approaches as alternatives to "static" trait classifications.

We therefore reviewed those historical-genetic approaches relevant to vocational psychology as the most typical clinical alternatives to trait classifications, and as presumably more useful to those most concerned with individualization. In this section we will briefly review some examples of historical-genetic classifications, and our reasons for rejecting them, before moving on to what seems to us the more promising approach.

The historical-genetic basis for vocational decision-making rests upon the assumption that present behavior is a function of past experiences. In order to understand current and future behavior of the individual, a professional must analyze things that have happened to the person in the past. The historical approach to behavioral analysis and prediction has its roots in psychoanalytic theory.

The basic notion of the historical approach is that experiences derived from parent-child relationships shape personality and individual predispositions. An individual's occupational choice and his behavior in occupational situations are derivatives of early experience, and are either instrumental means for the attainment of pacification of impulses, or sublimated forms of conflict-defense which have been socially channeled. One theory of career choice that has its basis in early childhood experiences is that of Ann Roe.

1. Roe's Personality Theory of Career Choice

Roe postulates a genetic predisposition toward expending psychic energy. The life style that the person manifests is merely a culmination of the early childhood experiences and the predisposed tendency toward expenditure of this psychic energy in satisfying certain basic needs. Roe's theory of

career choice attempts to explain the relationship between the early childhood experience and genetic factors on the one hand, and vocational behaviors on the other (Osipow, 1968). Need structure and its intensity is an important concept. The need structure is conceptualized along the line of Maslow's hierarchy of prepotent needs (Roe, 1956).

Drawing a parallel to Maslow's general theory of motivation based on a hierarchy of needs, Roe uses an analogous framework in developing her theory of vocational choice. Maslow theorizes that "prepotent needs are more urgent and insistent than the others under equal deprivations, and until the prepotent ones are relatively satisfied, the others do not emerge as consistent motivations of behavior" (Roe, p. 25, 1956).

Following Maslow's concept and hierarchy schemata, Roe developed a two-way occupational classification in which every occupation is classified in each of two sets of categories, one called Groups, the other Levels. There are eight occupational Groups. Occupations within each group are classified according to Level. Level denotes the degree of personal autonomy and the level of skill and training required. There are six Levels. The classification scheme results in an eight-by-six-celled table.

The Department of Veterans Benefits of the Veterans Administration has made rather wide use of Roe's two-way occupational classification, having used it as a tool in occupational explorations with veterans and beneficiaries for VA services. An adaptation of Roe's format as used by the Veterans Administration is shown in Table 1 (Veterans Administration, 1968).

Levels are arranged in hierarchical order with Level 1 at the top and each successive Level requiring less skill and/or training and involving less responsibility. The

Groups, classified by primary focus of activity, are as follows: 1) Service; 2) Business contact; 3) Organization; 4) Technology; 5) Outdoor; 6) Science; 7) General cultural; 8) Arts and Entertainment.

Through an arrangement of occupations by Group and Level, Roe indicates that it is possible to see more clearly the relationship of various aspects of personality and background to occupational choice and success. "If we can think of motivation in terms of both kind and degree, it would be fair to say that the kind of motivation or the content of it is related to Group, whereas the amount of it is more significant for Level."

Although Roe's approach to vocational counseling has a developmental basis, and originates in the language of dynamic psychology, it does not meet the needs of the manpower system, for the following reasons:

- Although its broad classifications are useful for career development counseling, they are too general to deal with specific job openings and placements. For example, they provide no basis for helping clients choose between enrollment in an institutional training program in welding vs. an on-the-job training experience in punch-press operation.

- Its procedures are appropriate and useful for guidance purposes, but do not seem defensible if they are used as bases for admission of clients to various manpower agency services. That is, where the decisional outcome determines whether a client will be admitted to a publicly-funded and sponsored program - a decision for which the client has no right of appeal - the procedures and criteria for the decision should be more precise and objective than the Roe scheme permits.

- Despite the dynamic origins of the Roe scheme, at the operational level it is indistinguishable from the trait approach. That is, at the point in a client's life at which

OCCUPATIONAL EXPLORATION-SELECTION AND DESIGNATION OF OBJECTIVE *

INSTRUCTIONS--Two dimensional Classification of Occupations: The table below should help in securing an overview of the world of work and initiating consideration of occupations at various levels in given fields. Check cells to be explored for specific occupations. Identify the occupations below grouped by cell identification, e.g., B 4

FIELDS OF WORK AND OCCUPATIONAL LEVELS

	FIELD	OCCUPATIONAL LEVEL					
		1	2	3	4	5	6
A	SERVICE						
B	BUSINESS CONTACT						
C	ORGANIZATION						
D	TECHNOLOGY						
E	OUTDOOR						
F	SCIENCE *						
G	GENERAL CULTURE						
H	ART & ENTERTAINMENT						

GROUP	OCCUPATIONAL TITLES	GROUP	OCCUPATIONAL TITLES
GROUP	OCCUPATIONAL TITLES	GROUP	OCCUPATIONAL TITLES
GROUP	OCCUPATIONAL TITLES	GROUP	OCCUPATIONAL TITLES

RECOMMENDED OCCUPATIONS AND SELECTED OBJECTIVE

OCCUPATIONS RECOMMENDED:	OCCUPATIONAL OBJECTIVE AND/OR CODE OR EDUCATIONAL PROGRAM SELECTED	
TITLE	TITLE	

*Taken from VA form 21E-19026 VETERANS ADMINISTRATION RECORD-Appraisal-Selection of of OBJECTIVE, November, 1968.

Table 1

the scheme is used, it is the outcome of the developmental process to that date which are considered. These outcomes thus assume the status of traits of the client, and are thus subject to the same considerations and objections discussed in the preceding section.

Other dynamic genetic approaches, such as Erikson's theory of identity formation as a product of events in developmental stages in the individual's life history, have been applied to vocational and occupational careers by Bordin et al. (1963) and his students (Casson, 1970; Nachmann, 1957; Galinsky, 1961). These researchers proceed from the assumption that different occupations lead to different kinds of need satisfactions, and offer different kinds of gratifications (for example, social work as an occupation is said to provide opportunities for the social worker to gratify needs to provide nurturance to others). They reason that the motivations to enter various occupations are composed of anticipations of obtaining such gratifications, and that the stronger the needs which the occupation can fulfill, the greater the individual's interest in the occupations. Thus they hypothesize that various events in the individual's life history which might give rise to a particular need can be shown to be related to a particular pattern of vocational interests. For example, events in childhood which lead to the development of internalizations of a maternal figure, or to the need to replace a nurturant figure through identification, are said to produce the kinds of needs which can be gratified by involvement in social work activities, and should thus be reflected in an interest in social work as a vocation.

This use of development history as a basis for understanding clients' positions vis-a-vis the world or work has interesting theoretical possibilities. Unfortunately, its applications are far too clinical in their orientation. They require a level of training for their use far in excess of

that which characterizes manpower workers, and their empirical validities, while sufficient for establishing principles in research work, are too low for operational use with individual clients.

2. Cognitive Deficit Theory

A variation of the historical-genetic approach which has much currency in theorizing about disadvantagement is the "cognitive deficit" hypothesis, which ultimately stems from the ego psychology of Anna Freud. The basic notion of this approach is that intellectual structures, like emotions and drives, are developed through infancy and childhood, and acquire personally individualized forms as a result of developmental experiences. These cognitive styles then become characteristic modes of adults, channeling the ways in which they receive, process and use informational inputs from the environment and from within themselves. "inner-directed vs. other-directed," "cognitive rigidity-flexibility," "internal-external locus of control," "field dependence vs. field independence," etc., are proposed dimensions of cognitive style which have been the subjects of much research in recent years.

Applied to the disadvantaged, this approach has led to the position that early deprivation and the particular social structure of lower class family life results in the development of particular cognitive styles (often assumed to be best revealed through the linguistic structure of the individual) which channel the individual's cognitive operations in ways which are inconsistent with or unsuitable to the demands made by industrial employment. The result is said to be an inability to function adequately in bureaucratized and rationalized work settings. Such disabilities are reflected in lateness and absenteeism, lack of future planning, lack of striving, disregard of the use of rules, misinterpretation of the formal properties of worker-boss

and co-worker relations, etc.

The "cognitive deficit" hypothesis regarding the disadvantaged has been most highly developed by Bernstein (1970), Bruner (1971), Deutsch (1968), and supported by a great deal of research (e.g., Hess and Shipman (1965); see Gordon (1968a) for a review of such studies).

However, more recently, carefully controlled studies and theoretical developments have called the "cognitive-deficit" hypothesis into question. Specifically, research on the dynamics of interpersonal relations between disadvantaged and non-disadvantaged indicates that the "deficits" typically measured seem to depend on the relationship between experimenter and subject. If they are responses to the measurement situation, the measured results cannot therefore be taken as the effects of cognitive styles established in infancy and childhood.

On the theoretical level, the notion that low achievement motivation, for example, reflects a developmental deficit rather than an appropriate response to a low incentive environment, cannot be supported by the existing data. Similarly, research findings that the disadvantaged tend to have external vs. internal loci of control (which is said to account for lack of striving, low self-confidence, etc.) cannot be ascribed to developmental deficits if it is true that poor and minority children and adults are in fact less powerful, influential, and efficacious in controlling the social environment than non-minorities and the non-poor. In the latter case, a disadvantaged person's self-report (on personality tests) that he tends to be controlled by others in many situations, rather than he controlling the situations and what happens to him, can be described as an accurate perception of his current situations. This interpretation fits the data, as well as, and more parsimoniously than, the interpretation of an inaccurate cognitive style stemming from early deprivation. In short, the cognitive deficit

approach makes the error of ascribing to the individual as a trait a set of perceptions of what might be described as traits of his environment. This alternative accounting of the results which have been reported by the cognitive deficit theorists is reviewed by Ledvinka (1971), Labor (1970), Katz et al. (1968), Gordon (1968b), and others.

These critiques do not deny that the disadvantaged tend to score differently on various measures associated with cognitive style and linguistic performance. Rather, they reject the hypothesis that such differences necessarily reflect an enduring limitation established through childhood development. Instead, they suggest two other explanations which account for the same results: a) that the scores and behaviors reflect only characteristics of the disadvantaged person's response to the measurement situation, therefore do not reflect characteristics of his response to other situations having different elements; and b) that they reflect rational responses to social and economic realities, which therefore cannot be changed independently of changing the external realities without making the individual less rational. In this interpretation, ascription of the trait to the perceiver rather than to the things perceived is an error of logic and an unjustified displacement.

The implication of both of these explanations is that the behaviors which characterize disadvantagement in an industrial society can be changed by changing features of the situations in which they occur (e.g., the predictability of incentives, race/ethnicity of the tester). They do not have to be taken as immutable damages produced in the individual's childhood. A further import of great significance for assessment in manpower agencies is the implication that the behavior of a disadvantaged client within the agency is, to an unknown extent, a response to stimulus conditions within the agency setting which may not be present in other settings, and that

therefore the in-agency-setting behavior cannot be used accurately to predict behavior in other contexts. For example, an apparent lack of achievement motivation in the agency, when the client in fact has no job opportunity and little expectancy of one, cannot be taken as characteristic of his behavior in a situation in which his expectancies for achieving a desired goal are higher.

These alternative explanations are, then, more hopeful than the deficit hypothesis, in that they focus on variables which, if changed, can result in changes in client behavior (i.e., agency setting, and other socio-economic environment variables), whereas the deficit hypothesis leads to the expectation that little can be done, since the individual's childhood is beyond reach, once the childhood is past and the deficit established.*

A final set of problems with the cognitive deficit approach is that:

a) the "deficits" identified in the literature thus far do not fall into a coherent conceptual order;

b) the "deficits" are unstable (in the sense that different measures of presumably the same cognitvie operations do not often correlate with one another);

c) there is no empirical evidence that the cognitive

*This position does not deny that there are psychosocial consequences of early deprivation. It does suggest that many of the behaviors said to be characteristic of disadvantaged adults are situational responses, rather than ingrained habits produced by early deprivation. Further, it is suggested that some portion of characteristics which can be proven to be effects of early deprivation are probably not relevant to employment. Our judgment is that if we restrict a classification scheme to only those behaviors which are demonstrably the result of early deprivation and demonstrably related to employment success, the scheme would cover very little. Further, we believe it more useful to concentrate on behaviors about which a manpower agency can do something; that excludes behaviors which are the enduring consequences of deprivations which, having occurred in the past, cannot be changed by manpower agencies.

styles which have been studied are closely enough related to occupational or vocational success to be useful for assigning treatments to clients in manpower agencies.

3. Evaluation of the Historical-Genetic Approach

To sum up, the historical-genetic approaches to a taxonomy of employment disadvantagement do not seem likely to meet the criteria of reliability, usability, practicality, ethicality, and efficiency:

a. Reliability

The dynamic approach seems to be least conducive to reliability. The unreliability of the historical approach is found in distorted memory of the client, differential interpretation by the vocational decision-maker who must process the information to determine meaning and significance, and the inherent unreliability of correlations between childhood experience, personality dynamics, and occupational choice. Recognizing the possibility that accurate recall of antecedent experiences dating back to childhood may be faulty, whatever data that emerge to be interpreted for use in assignment run the risks of being interpreted differently depending upon the clinical sensitivity of workers having the responsibility for making inferences. The problem of reliability in use of the "cognitive deficit" approach has already been noted in the observation that the behaviors observed in the agency may be different from the client's behavior in other settings.

The problem of reliability is not solved by efforts to formalize the collection of life history data. There has been a fair amount of research on the use of biographical information blanks and biographical data in job applications. While much of the research has demonstrated relationships between biographical data and various measures of job success

in a variety of (mostly white collar) occupations, there is some evidence that these relationships do not hold up over time, and that validity coefficients shrink with each passing year after validation (Wernimont, 1962). Even more damaging to potential use in manpower agencies is the finding that predictions from biographical data are placement-specific. For example, "married vs. single" predicted success for engineers in two companies, but in opposite directions (i.e., being married predicted success in one, being single in the other) (Hoose, 1963).

b. Usability

Taking into consideration the training time required by those following the clinical tradition which assigns a high priority to historical-genetic factors, the cost in hiring and/or training manpower personnel rules out this approach. The clinical diagnostic methods associated with this approach require enromous supplies of time and talent while running the risk that the diagnoses which emerge turn out to be useless for treatment or prediction purposes.

An historical-genetic approach leads to either of two kinds of treatment: intensive reconstruction (i.e., long term intensive counseling or therapy), or adaptive counseling in which the products of historical-genetic events are accepted, and the worker attempts only to find an occupational niche which best matches the kind of personality functioning that the past has developed in the client. In the case of the disadvantaged, an acceptance of the cognitive deficit variety of this approach, in the framework of adaptive counseling, would mean consigning the disadvantaged to those kinds of marginal and unstable jobs that "match" the deficits of the clients. Acceptance of such an approach as policy would be tantamount to an admission that manpower services cannot change the occupational/vocational status of the disadvantaged.

c. Practicality

There are three sources of practical difficulty in using historical-genetic models for a taxonomy of disadvantagement. The first has to do with the devotion of time in assessment-diagnosis which this kind of clinical approach entails. Clinical assessment requires extensive testing and interviewing, which disadvantaged clients are not likely to stand for, and which manpower agencies cannot afford - to say nothing of the potential client resistance to depth assessment procedures when he defines his problem as one which can be solved by referring him to a job or to skill training.

The second practical difficulty is that manpower agencies are not in a position to provide differential "treatments" on the basis of such assessments. The field lacks the knowledge and the technologies required for: a) knowing when specific cognitive deficits produce failure potential in what aspects of which kinds of jobs; and b) implementing procedures of known effectiveness in reducing or eliminating the handicapping deficits. For example, we do not know how to change a client's field dependence to field independence, and the deficit theory provides no clues as to how what was acquired in childhood can be changed in the adult, short of intensive psychotherapy.

Finally, manpower clients are likely to resent any efforts that place them in a category of being "sick," or "defective." Self-blame, when the problem is one of extrinsic factors, has already played a major role contributing to the problems of people who have been disadvantaged.

d. Ethicality

Serious questions could be raised regarding invasion of privacy, by the nature of the probing methods that would have to be employed in assessment based on this model. Manpower enrollees are rather guarded in their approach to present

data collection techniques used in manpower agencies. One could therefore imagine the number of clients who would be "turned off" even more by methodologies that make use of depth probes, and/or of measures of cognitive style whose relationship to jobs and employment are not apparent to the subject.

e. Efficiency

A considerable amount of time would be required to carry out the diagnostic process. The demand on technical expertise in assessors would result in extended client processing delays because the supply of trained experts is insufficient to respond to the flow of manpower agency clients on a demand basis. Add to this the high dropout of those who cannot or will not tolerate an extended assessment period, and the overall picture becomes one of high input costs to relatively fewer clients.

In summary, the historical-genetic approach to a classification scheme of employment disadvantagement does not sufficiently meet the criteria established in our view. It is not likely to result in reliable methods, it would require considerable staff education and training, manpower clients are likely to be "turned off" by probe tactics and the implications of probes into family relations and/or cognitive style testing, and the time requirement would not be in the interest of responding to the immediate and relevant needs of manpower clients.

E. Classification of Behavior-in-Situations

A major objection which has been made to both trait and historical models is that neither has shown itself capable of adequately accounting for behavioral variations in particular situations, and that neither accounts for the influence on behavior of contemporary variables (e.g., availability of incentives, implicit role structuring, etc.). An implication of these arguments is that neither therefore provides a conceptual structure which makes it possible for a manpower

agency to intervene and change relevant determinants of the client's behavior.

These objectives are supported by several recent studies which also provide some solutions to the problem. In a series of studies, subjects were asked to report the extent to which they experience fourteen different kinds of responses, all of which are generally considered indicative of anxiety (Endler and Hunt, 1966, 1968, 1969; Endler, Hunt, and Rosenstein, 1962). They were asked to do this for each of eleven different kinds of situations. The essential findings were that while individual differences accounted for only a small proportion of the variance (5%), and characteristics of the situations also accounted for only 5% of the variance, the interactions accounted for between 28% and 38% of the variance. In other words, how much anxiety was reported depended on the <u>interaction</u> between mode of response, individual differences, and situations, such that one subject might appear high in one type of anxiety in one situation, and low in a different kind of anxiety in the same situation. The implication is clear: the same person behaves differently in different situations, and if his behavior is to be understood within a useful taxonomic framework, that taxonomy will have to include both characteristics of individuals <u>and</u> characteristics of situations.

Findings similar to those of Endler and Hunt are reported by Moos (1968) who asked subjects to describe their reactions, on an adjective check list, to a variety of daily situations in a hospital (e.g., being with a nurse, being alone, going to bed, etc.), and by Rausch <u>et al</u>. (1959, 1960) who observed the behavior of preadolescent boys in various life settings (game activities, breakfast, arts and crafts, etc.). In both researches, individual differences were not very stable across the various situations, and the <u>interactions</u> were more predictive than either individual differences or situations alone.

Similarly, Stein (1966) found in his study of Peace Corps volunteers that predictions of success in the field varied in their accuracy, depending on both characteristics of the volunteer and of the field. He found, for example, that high risk volunteers performed much better than predicted, and better than low risk volunteers, in unstable and difficult field assignments. And Wechsler and Pugh (1967) found that individuals with certain characteristics were more likely to be hospitalized in some communities that in others, and that the extent to which a characteristic predicted hospitalization depended on the community. In other words, a factor that is associated with hospitalization in one community is not necessarily associated with hospitalization in another. The Wechsler and Pugh study suggests the possiblity that the individual characteristics associated with unemployment in one community (i.e., disadvantagements), might not be disadvantagements in another, where a different set of characteristics might be "disadvantagers." This possiblity is consistent with experience; being an American Indian in New York is not as much a disadvantagement as being an American Indian in Oklahoma or Arizona, and being a woman is more of a disadvantagement in heavy industry Detroit than in Washington (where males are more disadvantaged). Whether other, more psychological, characteristics might also vary as disadvantagements from place to place, has yet to be explored.

Nevertheless, the implications of the studies described above appear to be the following:

a. Behavior in one situation is not adequately predictive of behavior in a different situation.
b. Disadvantagement (defined as a low probability of being stably employed) probably varies as a function of the <u>interaction</u> of characteristics of the job/community setting, and of the individual.
c. Predictions of success in a training and/or job

placement require a taxonomy of both relevant individual characteristics, and characteristics of the training and/or work settings.

If these implications are accepted, it appears that the task of constructing a taxonomy has been both complicated and simplified. Where the objective of the taxonomy is to make correct placement decisions, then the task is complicated by the need to include a taxonomy of characteristics of placement settings. However, there are technologies available for doing this, as will be described in a later section of this report.

However, from another point of view, the task is also simplified. Placement decision-making occurs at the end of a series of decisions made by manpower agencies, all of which have a bearing on whether the client ever even gets to the point of a placement decision. These decisions include those which shape the manner in which any social agency processes its clients, from recruitment through intake, assessment, assignment, and follow-up. From a systems point of view, disadvantagement may consist of all those person and situation interactions which reduce the probability that a potential client will arrive successfully at the desired outcome of the final process stage (i.e., a confirmed, enduring placement). From this point of view, a taxonomy describing the interaction between persons and placement settings is needed late in the sequence; there is a <u>prior</u> need for a taxonomy which describes the interaction between persons and situations which arise throughout the agency processing stages, and which influences the likelihood that a prospective client will arrive at that ultimate point in the process (placement) where the interaction between persons and placement settings must be predicted.

Combining the discussion of person-setting interactions with a systems point of view permits a simplified solution

to the prior taxonomic problem. From a systems viewpoint, the actions performed to accomplish the objectives of the recruitment and intake phases, the objectives of the assessment phase, those of assignment and of follow-up comprise the situations with which the characteristics of prospective clients may interact. What is needed to construct the taxonomy is specification of the elements of these phases and a description of the behaviors of clients in these situations which influence the probability that the various objectives will be achieved. Taken together, then, a description of the behaviors of clients in the various phases of manpower agency processing comprises a taxonomy of Behavior-in-Situations, based on a systems model. Such an approach is consistent with the implications of the research described earlier, and avoids the error of assuming that the client's achievement of the objective of one phase in the process can serve as a predictor of his achievement of other, later objectives in other situations, including confirmed stable employment.

1. Characteristics of a Systems Model

A systems approach refers to the explication of a series of inter-related component functions designed to achieve a set of objectives. In using a systems approach it is necessary to 1) specify the objectives that one hopes to achieve; 2) specify and determine the functions that must be carried out in order to achieve the objectives; 3) specify the systems components that would most effectively perform each of the functions; 4) determine the value of the measureable dimensions of each relevant component.

A systems approach places a high premium on achieving goals and reaching terminal behavior. It purports to enable one to engage in rational, goal-oriented behavior as energy is expended only in those activities designed to accomplish specified objectives. The assumption is that systematic

activities will tend to reduce random, trial and error, and nonfunctional activity. Content, procedures, and strategies are selected only as they are necessary to the achievement of the objectives.

Osipow (1968) states that the application of social systems to individual counseling is most difficult. Because he believes that such an approach represents a group-oriented way of thinking about behavior, he concludes that it is inappropriate in individual counseling. He suggests, however, that such an approach may not be entirely inappropriate for the disadvantaged who need to change their concepts about work, develop behavior that is essential to interviewing for jobs, and modify language patterns and styles.* Conversely, Krumboltz (1966) argues for a systematic approach to counseling with both middle and lower class subjects through what he calls behavioral counseling. There are several elements of behavioral counseling advocated by Krumboltz that pertain to vocational decision-making: 1) decisions made should reflect the individual needs of enrollees; 2) goals of enrollees should be stated in such a manner that attainment will result in visible changes in the behavior of the enrollee; 3) attainment of goals that are established should be open to measurement and observation. One of the possible outcomes of stating objectives in terms that are open to measurement and observation is that both enrollee and counselor can anticipate what should be accomplished. It may also mean that decision-making will be more responsive to individual needs of enrollees. Further, the strategies that are employed to accomplish stated

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*This is a classic example of a kind of thinking (usually called racist) in which a system thought not good enough for middle class clients because it is said to ignore individual differences is thought to be acceptable for the disadvantaged. Presumably individual differences are less precious in the disadvantaged.

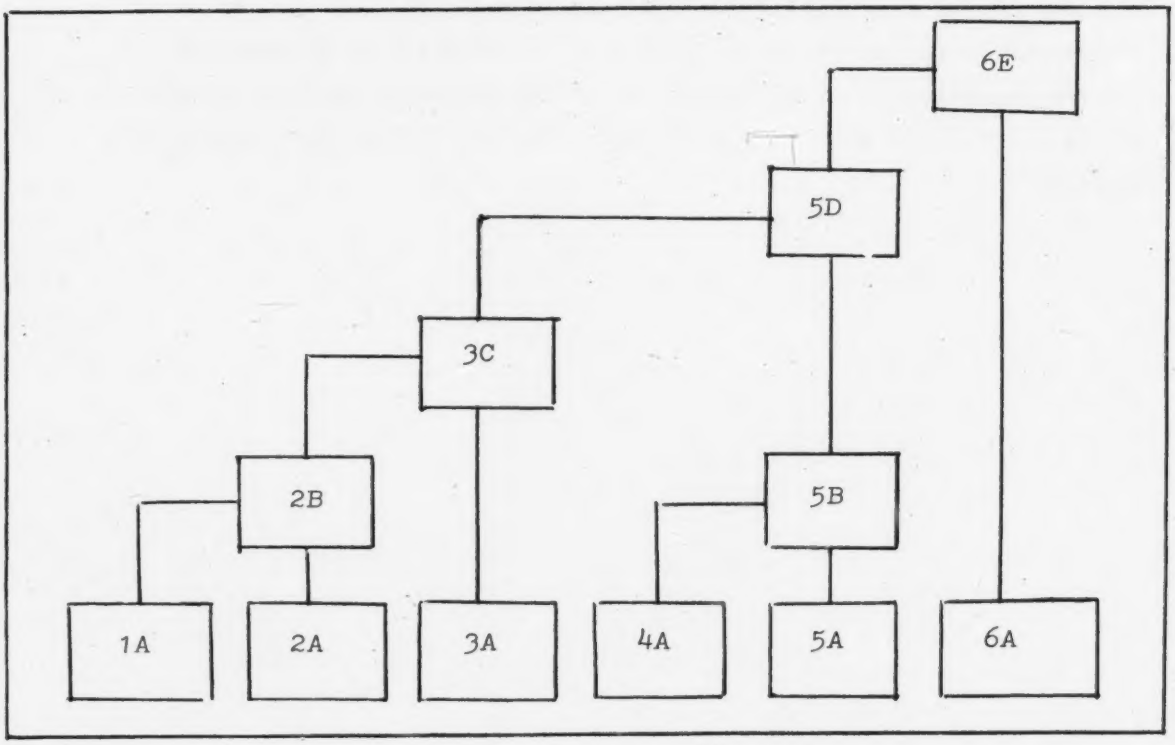
goals and objectives are more open to inspection and evaluation. This suggests that means for detecting ineffective procedures can be developed and that their recognition can lead to replacement with methods that are more likely to accomplish established objectives.

2. The Systems Approach in Program Design

In systems designs, several approaches could be used to display objectives and interrelationships among functions. Tasks may be sequenced from simple to complex. Each task may then be analyzed for its critical subtasks, sequenced in order of complexity. As in the design of a television set, a block diagram and schematic presentation may be used to display interrelationships among functions. Northern Systems Company, in its manpower training programs, employed the "lattice technique" which structures relationships from simple to complex. A "lattice" is a graphical network which displays the objectives, sub-objectives, and elemental functions of a system, and indicates the interdependencies of all system elements. Each system function or objective is represented as a single cell in the lattice. The cells are arranged hierarchically so that elemental system processes appear sequentially along the baseline; resultant sub-objectives appear as "ridge line" cells above and to the right of their constituent functions; and the overall system objective is shown at the extreme upper right of the lattice. A lattice may thus be read either "analytically" - i.e., downward and to the left to identify the elements of any function, or "synthetically," in the opposite direction, to follow the programmed sequence of system operations. There are three basic kinds of cells in a lattice as depicted in the diagram on the following page.

FIGURE I

Cells in "Lattice" System



1. Base line cells which depict action. These are the cells in Row A.
2. Intermediate resultant, which are interim events that must occur to reach the final objective.
3. The resultant cell, in the position of 6E is the functional objective or concept to be accomplished.

The activities occurring in cells 1A and 2A create the resultant presented in 2B. The resultant 2B when combined with the action in cell 3A develops cell 3C. The rest of the lattice similarly is organized to establish a picture of the interrelated activities required for the creation of a particular concept or project.

The Northern Systems model is only one abstract version of a systems approach. Before evaluating the potential of the approach as a basis for a taxonomy, it is necessary to describe the way in which it might be applied to the needs

of manpower agencies. The following chapter describes one form of a Behavior-in-Situations taxonomy. The proposed scheme could provide a conceptual structure for the kind of research that would be needed for a definitial statement of the taxonomy. Following the presentation of the scheme, it will be evaluated by reference to the criteria suggested earlier.

CHAPTER III

Proposed Systems Scheme

Introduction

The task of this chapter is to provide some indication of what a Behavior-in-Situations apprcach might look like.

There are several ways in which such a classification scheme might be implemented. One possible method is an adaptation of the procedure used by Goldfried and D'Zurilla (1969), who constructed a list of situations problematic to college students simply by asking the students to record their own behavior for a week. Once a comprehensive list was constructed, other students were asked to give their reactions to the situations in the list, and then reactions were rated by experts for "competence" such that some reactions were rated high, some average, and others low. These rated reactions thus can serve as standards against which to compare a new student's response to some situations when he encounters them.

A similar approach was taken by Gordon and Erfurt (1972) who collected and analyzed critical incidents by manpower agency workers. Each incident was classified in terms of the client problem with which it was concerned, and within each problem area, the objectives of the intervener, the strategies used to reach the objective, and the resources required for the strategies were noted.

A related approach is that described by Walker (1973), who tallied the frequency of client dropout from a manpower agency in each component (i.e., orientation, OJT, adult basic education, etc.), and had the responsible staff member fill out an "exception report" for each dropout. On the "exception report," the staff member identified the reason, from a list of possible reasons, for the client's dropping out. Walker built the list of possible reasons simply by asking staff members to identify what they saw as the common causes of dropping

out. Dropping out represents a failure of the client to achieve the objective of the agency component he was in at the time. It would be possible to extend the kind of monitoring Walker did to a finer level of quality control by counting not only drop-outs, but also time-to-completion of those who do not drop out.

While any of these approaches appear to be effective ways of building a classification of problem behaviors of clients in manpower agencies, we suggest a scheme which combines features of all three.

A. A Proposed Approach

1. A Taxonomy of Situations

We suggest that "situations" in manpower agencies be described by reference to the typical phases of client processing: outreach-recruitment; intake; employability development planning; try-out and implementation of employability development planning; and follow-up. Placement may occur at any point in the sequence between intake and follow-up, short-circuiting everything else in the sequence between the placement and follow-up. Assessment occurs continuously in all the phases in which a particular client participates.

Within each of the process phases, agency staff members engage in various tasks appropriate to the phase. Many of these worker tasks, as outlined by Haggard in his systematic task analysis of employability development team member activities, may be thought of as inputs to clients: that is, as elements of the situations to which clients respond in various ways in that process phase.

Agency workers could be asked to list common client responses to those inputs or situations, and to rate those client responses in terms of the extent to which each facilitates, inhibits, or is neutral so far as reaching the objective

of the process phase is concerned.

What would emerge would be a listing of problematic behaviors of clients in each agency "situation." Two remaining steps might be to: 1) analyze causes of the problematic behaviors-in-situations, and 2) then construct intervention strategies designed to reduce or eliminate the problematic interaction.

2. A Taxonomy of Problems

As suggested above, problematic client behaviors are those that interfere with achievement of the phase objectives. These are likely to range from dropping out to various non-productive ways of coping which delay ultimate attainment of the phase objective. Thus dropping out and time-to-completion of the phase can serve as indicators of ineffective behaviors, and could therefore provide empirical criteria for validating the list of client problem behaviors.

The behavioral situations which emerge from such a study could be considered "disadvantagements" (although not necessarily "traits" or "characteristics" of disadvantaged people) in the sense that any interaction between a person and his environment which impedes that person's progress toward his goals is a disadvantagement. These disadvantagements could be analyzed into several components:

a. The specific environmental element to which the client's behavior is a response.

b. The psychological determinants of the clients' response. These determinants may be described as falling into the three components of any response: interest, capability, and expectancy. This grouping is based on a behavioral model which sees goal attainment as dependent on the concurrence of three kinds of psychological processes: motivation (i.e., interest in achieving the goal state and/or in the processes leading toward the goal); the availability of the behaviors required for achieving the goal (availability includes both

the internal and external resource capabilities needed for a goal-oriented action to occur); and perception of the probability that use of such resources or capabilities will indeed result in goal attainment (i.e., expectancy).*

Identifying both the situational and psychological determinants of an ineffective response increases the options for intervention to change the response: either the situation can be changed so that the ineffective response does not occur, and therefore does not impede attainment of the phase objective, or the psychological determinants can be influenced by efforts to change the client's interests, response capability, or expectancies. Some examples of these kinds of interventions are described later in this chapter.

3. A Taxonomy of Interventions

When such analyses of ineffective responses to problem situations in manpower agency process phases have been completed, it then becomes possible to develop intervention strategies to reduce or eliminate the problematic interactions. A list of the strategies for each problematic interaction could be developed empirically, for example, by collecting critical incident reports from manpower workers about how they handled each type of problematic interaction, and

*There are situations not directly related to employment but which have an impact on a client's response to employability development efforts - situations such as home and family problems, community and legal problems, etc. To the extent that disturbances in these areas interfere with the client's achievement of vocational objectives, they do so by affecting the client's interests (e.g., preoccupation with home worries reduces interest in the subject matter in skill training), capabilities (e.g., needing to stay home in order to protect children from an abusive father means that a woman client has not the resources to attend class), and expectancies (e.g., spouse's nagging to drop out of skill training in order to take a lower paying job leads client to pessimism about reaping the benefits of an adequate income). Thus events outside the manpower agency influence the interaction between client interests, capabilities, and expectancies and agency situations. There are significant policy questions regarding the extent to which a manpower agency intervenes in such "outside the agency" events in order to facilitate achievement of employability development objectives.

comparing the interventions used with clients who ultimately achieved the phase objectives with those carried out with clients who did not. The result would be a taxonomy of effective and ineffective techniques closely tied to the taxonomy of disadvantagements.

4. Phase Objectives

As indicated above, we propose that the taxonomy of situations be organized around the major phases of manpower agency client processing. The typical assumption of trait approaches, as outlined in Chapter II, is that traits are generalized across situations; thus a client's behavior in the manpower agency is assumed to be a sign of a behavioral characteristic which is expected to be manifested in other situations (e.g., in employment). The approach recommended here makes such an assumption unnecessary, and thus avoids the dangers of making the assumption when it is not valid, without risking the opposite danger. That is, ineffective behaviors which are generalized across situations can be identified by their recurrence in the same client in each of the agency's process phases, thus suggesting that the behavior may also occur in other situations such as employment.*

Avoidance of the assumption of generality focuses the agency's attention on the client's "here and now" behavior, evaluated by reference to whether or not that behavior facilitates or impedes attainment of the objectives of the agency's program. In this approach, the main objective of the agency

*Nevertheless, generalization from behavior in the agency to behavior in employment should be done only tentatively and with the greatest caution. Not only do the situations differ greatly (e.g., there are usually stronger incentives in an adequately paying job), but so do the psychological determinants of the client's behavior (e.g., his/her expectancies in employment are different from those related to the outcome of the agency's work).

is placement above some minimal level of quality in the shortest time possible. In order to achieve this goal, a client must achieve certain necessary prior objectives: he must be recruited to the agency (by self or others); he must be taken in; decisions regarding employability activities must be made and implemented; the client must be referred to a job successfully; and he must be followed up until the placement is confirmed as successful. In other words, the ultimate goal cannot be achieved if prior objectives are not attained. It is in this sense that interactions which impede achievement of phase objectives are considered disadvantagements - to both the client and the agency.

This approach lends itself to conceptualization in system terms. That is, each phase has an objective, and attainment of an objective hands the client on to the next phase. Thus client progress can be evaluated by reference to the objectives sought and attained, while manpower workers may be permitted considerable leeway in solving problems along the way, so that clients meet the objectives in as brief a period of time as possible.

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* This also permits evaluation of staff by reference to the number of clients who reach objectives, and the time it takes to do so. Such an accountability system for staff would require at least two preconditions: 1) the accountable unit (it may be either an employability development team, or an individual staff member) must have control over whatever resources are needed to reach objectives, or the existing resources must be evenly divided among the accountability units. It would obviously be unfair to evaluate a staff member on the basis of the number of his/her clients who are referred, if that staff member is dependent on some other unit to make the placement referrals. However, if the staff member or team is either held responsible for its own job development, or the jobs developed by another unit are made equally available to all accountability units, then the accountability units can be legitimately compared for effectiveness. 2) the clients dealt with by one accountability unit are not discriminably more difficult to work with than those for which other units are responsible. Thus an accountability system would require that clients be randomly assigned to teams or to staff

Such a system requires specification of the objectives of each phase, so that these objectives may serve as criteria for monitoring client progress and evaluating staff. We suggest that an analysis of manpower agency operations would yield objectives like those proposed below.*

Phase	Objectives
Outreach and Recruitment	Unemployed and underemployed citizens in the agency's cachment area apply for manpower services.
Intake	A. Establish client eligibility for services.
	B. Successfully** refer ineligible clients to other resources.

Page 64 continued - members. However, that is often unrealistic and impractical (one wouldn't be able to assign clients randomly to local offices, so it wouldn't be possible to hold local offices to common standards). It would also be inadvisable (if there are some staff who are particularly good with some kinds of clients, the agency should be free to assign those clients to that staff member without worrying about how that would increase or decrease the difficulty level of the cases in that member's work load and thus excuse him from accountability). Therefore, an alternative procedure might be more effective: provide a corrective "weight" to the staff member's output score depending on how difficult a client is. Very likely, the less educated, the younger, and the more work inexperienced the client, the longer it will take for him to reach certain phase objectives. An additional weight for race/ethnicity might be assigned for the placement phase where the labor market is racially/ethnically prejudiced. By using such "weights," inequality among the difficulties faced is partially reduced for accountability purposes. Such a possibility needs to be empirically tested in practice.

*This statement of objectives is based on arm-chair analyses and familiarity with manpower agency processes. It would be necessary to do more systematic empirical work before a final statement of phase objectives is accepted.

**"Successfully" means that the client follows through on the referral.

C. Successfully refer eligible client to the next appropriate phase of service (e.g., ED team, placement interviewer, etc.).

D. Elicit information from or about client for assessment purposes to be used as inputs to the service phase to which client is referred (i.e., give ED team assessment info about the clients referred to the team).

Employability Development Planning

A. Client and worker jointly adopt a statement of employment objectives.

B. Steps to be taken by client and agency to achieve employment objectives are outlined and jointly accepted by client and worker.

C. A timetable of significant steps leading toward the agreed upon vocational objectives is jointly adopted by client and worker.

D. Client is successfully referred to first step toward the objectives (e.g., client referred to orientation, and/or institutional training, and/or direct placement, etc., and follows through on the referral).

E. Information from or about client for assessment purposes is elicited, to be used as inputs to the next phase to which client is referred (i.e., give orientation leader relevant information about the client and what client

needs to achieve the objective which orientation is to serve for him).

Try-Out and Implementation of Employability Development Plan

A. Client reaches goals established by EDP according to the timetable, or client goals and/or timetable are revised and client reaches revised goals.

B. Client successfully referred for placement services.

C. Information from or about client for assessment purposes is elicited, to be used as inputs to the placement referral and follow-up processes.

Placement

A. Client is successfully referred to a job consistent with that established as the goal of the EDP.

B. Relevant information about the client and the placement is passed on to the follow-up worker, for use in monitoring client's behavior in the placement, and intervening in problematic situations.

Follow-up

A. Confirmed placement after X months of successful employment.

B. Client has taken appropriate steps toward further career development (e.g., promotion, etc.).

Given objectives such as those suggested above, it is apparent that their achievement depends on both the client and the agency staff member(s) who work with him. A taxonomy of disadvantagements, in this context, may be composed of the

problematic interactions which interfere with the achievement of the objective of each phase. Obviously, there would need to be developed more precise criteria for these objectives (e.g., how can one decide whether "relevant information about the client and the placement is passed on to the follow-up worker ...?"). It should be noted that in this system, assessment is a continuous activity, although the kinds of assessment information required vary from phase to phase, and the utility of the assessment information is limited to that which is relevant to the actual situation which the client will enter in the next phase. Nevertheless, in each phase, the generation and transmission of assessment information is listed as one of the phase objectives.

5. Summary

We have suggested that a taxonomy of disadvantagements be established empirically by analysis of problems which interfere with the timely achievement of objectives in each of several phases of manpower agency operations. Within each phase, agency worker tasks may be conceptualized as situational inputs to clients, and client responses to those inputs evaluated for their effectiveness by reference to criteria for determining whether phase objectives are accomplished. Where a task response is ineffective, the situation is a disadvantagement with several components: the environmental elements to which the client is responding; interest, expectancy, and capability determinants of the client's behavior in that situation.

Once these disadvantagements have been listed (for example, in order of frequency of occurrence of the situation), intervention strategies may also be empirically developed, as ways of reducing the disadvantagement. Thus a close tie between disadvantagements and what can be done about them can be built in to the system.

The resulting system may be used as a basis for monitoring

both client progress and staff accountability.

B. A Sample Taxonomic System

The purpose of this section is to illustrate what the empirical analyses suggested above might produce. What follows is not a proposed taxonomy of disadvantagements; rather, it is an illustration, drawn from general but unsystematic experience, of what the results of more systematic work might look like. Because our purpose is illustrative, the charts following are not complete; not all objectives, tasks, problematic responses, or strategies are included.

PHASE: OUTREACH AND RECRUITMENT

Objective: Unemployed and underemployed citizens in the agency's cachment area apply for manpower services.

Tasks	Problematic Responses	Strategies
1. Publicize agency to referral sources, such as Welfare Department, secondary schools, etc.)	1. X% of potential clients referred from other agencies do not follow through because:	
	a. Situational factors	
	i. Referral is vague and nonspecific.	Provide referral agency with handouts to be given to potential clients which describe location of manpower agency and how to get to it, nature of services, and placement objective of services.
	* * * * * * * * *	
	b. Client interest factors	
	i. Information client receives suggests jobs whose pay off is less than client's current support.	Include in handout description of former clients who have moved into good and interesting jobs through manpower agency's efforts.
	* * * * * * * * *	
	c. Client expectancy factors	

Tasks	Problematic Responses	Strategies
	i. Black clients believe that agency will refer them only to low paying or dead end jobs usually reserved for blacks.	a. Use photos of successful black clients in the handout. b. Send black outreach workers to those clients referred who did not follow through, as reported by the referring agency.
	d. Client ability factors	
	i. Referring agency with high rate of non-follow through is distant from manpower agency, and potential clients lack transportation.	Get referring agency to assign its case aides to drive referred clients to the manpower agency.
* * * * * * *	* * * * * * * * * * * * * *	

PHASE: INTAKE

Objective A: Establish client eligibility for services.

Tasks	Problematic Responses	Strategies
1. Elicit accurate information from client about age, residence, employment status, educational, welfare, income status.	1. Client reluctant to give personal data to intake worker because:	
	a. Situational factors	
	i. Questions are asked in a suspicious or disinterested, impersonal manner.	a. Retrain intake worker. b. Transfer reluctant clients to more responsive intake worker.
	b. Client interest factors	
	i. Client doesn't see the need for personal information in order to be referred to a job or training.	Explain to client why the information is required by the agency, and how it will be used.
	c. Client expectancy factors	
	i. Client fears that the information he provides will make him ineligible for service.	Explain the criteria for eligibility, and tell client of services available to those who are not eligible for manpower programs.

Tasks	Problematic Responses	Strategies
	d. Client ability factors	
	i. Client does not possess required documents such as Social Security card.	Defer the issue until arrangements can be made for client to apply for a new Social Security card, and go on to other items.
	2. Client seems to be fabricating his answers to fit what he thinks intake worker wants to hear.	
	a. Situational factors	
	i. Intake worker seems to inquire more about failure experiences and problems than about client's successes.	a. Inquire about things the client feels he has done well. b. Confront client gently with the need to deal with problems that might interfere with future placement successes.

PHASE: INTAKE (continued)

Objective C: Refer client to next appropriate phase of service.

Tasks	Problematic Responses	Strategies
1. Refer client to counseling.	1. Client fails to keep appointment because:	
	a. Situational factors	
	i. Client must wait for indeterminate amount of time in dull waiting room.	Introduce client to counselor immediately, ask counselor to make a definite time appointment, and suggest things for client to do in the waiting room.
	b. Interest factors	
	i. Client does not enjoy talking about self to strangers.	Show client a short film of another client discussing his vocational interests with a counselor.
	c. Expectancy factors	
	i. Client expects counselor to be disciplinarian like high school counselors.	Tell client what counseling is for, what to talk about to counselor, and what counselor will do in the counseling.
	d. Ability factors	
	i. Client cannot be at	Schedule evening hours when

Tasks	Problematic Responses	Strategies
	the agency at the time scheduled, because cannot afford a babysitter.	client's mother will be home from work to take care of baby.

PHASE: EMPLOYABILITY DEVELOPMENT PLANNING

Objective A: Jointly adopt a statement of employment objectives.

Tasks	Problematic Responses	Strategies
1. Administer vocational interest and aptitude tests.	1. Client does not keep appointment for testing because:	
	a. Situational factors	
	i. Tests are administered by a staff member the client has never met and with whom he has no rapport.	Counselor with whom the client has been working starts the client off on the testing and then tells the client that test administrator will take over as his surrogate.
	b. Interest factors	
	i. Client feels that he has sufficient knowledge of interests and abilities without tests.	Accept client's statement of interests, and ask him if he'd like to check it out by tests to see if there are other interests and aptitudes he does not know about.
	c. Expectancy factors	
	i. Client assumes he will fail on tests as he has done before.	At time of referral for testing, let client take a "sample" of a test on which he is likely to do well, and give supportive feedback on his performance.

Tasks	Problematic Responses	Strategies
	2. Client does not seem to be putting maximum effort into his test performance because: * * * * * * * * * * * * * * * * * b. Interest factors i. Client does not believe that test performance relates to any kind of work he might get.	Tell client that there is a difference between placement X and placement Y, and that the tests will help client decide which of the two placements would match his particular skills better.

PHASE: TRY-OUT AND IMPLEMENTATION OF EMPLOYABILITY DEVELOPMENT PLAN

Objective A: Client reaches goals established by EDP according to the timetable, or client goals and/or timetable are revised and client reaches revised goals.

Tasks	Problematic Responses	Strategies
1. Conduct orientation group for clients who are almost job ready but lack skills in adapting to new work and social situations (e.g., job interviews)	1. Client angry and hostile to group leader, and disrupts group because: a. Situational factors i. Client is completely job-ready and work experienced, but was put in orientation to "hold" him while placement section searches for an appropriate opening.	Tell client that assignment to orientation is only a mechanism for keeping him qualified for MDTA pay and allowances while a job is being developed, and ask him to use his work experience to help others in the group who are less job-ready.
	* * * * * * * * * * * * * * * *	
	c. Ability factors i. Client gives ineffective responses to mock job interviewer.	Have more experienced client demonstrate better answers to same questions, and then have client imitate him until client does as well as the demonstration.

Tasks	Problematic Responses	Strategies
2. Teach client to measure with a ruler as part of institutional training in woodworking skills.	1. Client shows up to class late, thus, missing important instruction, because:	
	a. Situational factors	
	i. Class atmosphere is similar to that client experienced in public school, in which he was treated as stupid.	Coach carpentry instructor into role of technical expert-consultant rather than authoritarian teacher.
	b. Interest factors	
	i. Client does not see how promptness to training has any relation to how well he learns woodworking.	Explain to client the job relevance of the work he is missing, and set up a contract to reduce lateness by half in next week and zero in the week after, using reduction in length of training as incentive.

PHASE: PLACEMENT

Objective B: Relevant information about the client and the placement is passed on to the follow-up worker, for use in monitoring client behavior in the placement, and intervening in problematic situations.

Tasks	Problematic Responses	Strategies
1. Summarize previously developed assessment data (e.g., observations of client behavior in previous phases, intervew data, tests, instructor's ratings, etc.) concerning likely client behaviors on the job in which he is placed, and transmit to follow-up coach.	1. Client refuses to meet with coach and tries to prevent foreman from meeting with coach because: * c. Expectancy factors i. Client believes that information about his previous record will prejudice company against him.	Conduct a joint meeting with client, coach, and counselor to agree on what information about the client should be made available to coach and to foreman, and why (i.e., what work situations might develop in which client may need help in responding more effectively than he has in similar situations in the past).
2. Introduce client to follow-up worker assigned to client.	1. Client hostile to follow-up worker because:	

Tasks	Problematic Responses	Strategies
	* * * * * * * * * * * * * * *	
	b. Interest factors	
	i. Client wants to graduate from the role of being "protected" by someone else, and believes he should be allowed to try himself out on his own.	Agree not to use follow-up coaching at the work place if client will agree to meet with other newly placed clients in a group meeting to discuss and share experience, X number of times.

PHASE: FOLLOW-UP

Objective A: Confirmed placement after X months of successful placement.

Tasks	Problematic Responses	Strategies
1. Keep client on the job by periodic checking with client and foreman about performance.	1. Company reports that client has to be fired for insubordination.	(See Gordon and Erfurt: Placement and After).
2. Maintain client's interest in the new job.	1. Client complains about how boring the work is because: a. Situational factors i. Client's friends are unemployed and attract him to quit by telling him of fun they have while he is at work.	Introduce client to other young black employees at the company and encourage the development of in-company friendship group to balance the pull of neighborhood friends.
3. Maintain client's attendance at work.	1. Client skips several days of work because of drunkness, because: a. Situational factors i. Client's wife has been hassling him about spending too much of paycheck on after-work drinks with co-workers.	Get client to agree to referral to family service agency to work out solution to family problems.

PHASE: OUTREACH AND RECRUITMENT

Objective: Unemployed and underemployed citizens in the agency's cac
apply for manpower services.

Tasks	Problematic Responses	Strat
1. Publicize agency to referral sources, such as Welfare Department, secondary schools, etc.	1. X% of potential clients referred from other agencies do not follow through because: a. Situational factors i. Referral is vague and nonspecific. * * * * * * * * * b. Client interest factors i. Information client receives suggests jobs whose pay off is less than client's current support. * * * * * * * * * c. Client expectancy factors	Provide ref handouts to tial client location of agency and to it, natu and placeme of services Include in tion of fo have moved interesting manpower a

...AND RECRUITMENT

...Unemployed and underemployed citizens in the agency's cachment area ...apply for manpower services.

	Problematic Responses	Strategies
...cy to ...es, ...e ...cond- ...tc.	1. X% of potential clients referred from other agencies do not follow through because:	
	a. Situational factors	
	i. Referral is vague and nonspecific.	Provide referral agency with handouts to be given to potential clients which describe location of manpower agency and how to get to it, nature of services, and placement objective of services.
	* * * * * * * * *	
	b. Client interest factors	
	i. Information client receives suggests jobs whose pay off is less than client's current support.	Include in handout description of former clients who have moved into good and interesting jobs through manpower agency's efforts.
	* * * * * * * * *	
	c. Client expectancy factors	

Tasks	Problematic Responses	Strategies
	i. Black clients believe that agency will refer them only to low paying or dead end jobs usually reserved for blacks.	a. Use photos of successful black clients in the handout. b. Send black outreach workers to those clients referred who did not follow through, as reported by the referring agency.
	d. Client ability factors	
	i. Referring agency with high rate of non-follow through is distant from manpower agency, and potential clients lack transportation.	Get referring agency to assign its case aides to drive referred clients to the manpower agency.
* * * *	* * * * * * * * * * * * * *	

PHASE: INTAKE

Objective A: Establish client eligibility for services.

Tasks	Problematic Responses	Strate
1. Elicit accurate information from client about age, residence, employment status, educational, welfare, income status.	1. Client reluctant to give personal data to intake worker because:	
	a. Situational factors	
	i. Questions are asked in a suspicious or disinterested, impersonal manner.	a. Retrain int b. Transfer re clients to responsive worker.
	b. Client interest factors	
	i. Client doesn't see the need for personal information in order to be referred to a job or training.	Explain to clie the information by the agency, will be used.
	c. Client expectancy factors	
	i. Client fears that the information he provides will make him ineligible for service.	Explain the cri eligibility, a client of servi able to those eligible for m programs.

Establish client eligibility for services.

Problematic Responses	Strategies
1. Client reluctant to give personal data to intake worker because:	
a. Situational factors	
i. Questions are asked in a suspicious or disinterested, impersonal manner.	a. Retrain intake worker. b. Transfer reluctant clients to more responsive intake worker.
b. Client interest factors	
i. Client doesn't see the need for personal information in order to be referred to a job or training.	Explain to client why the information is required by the agency, and how it will be used.
c. Client expectancy factors	
i. Client fears that the information he provides will make him ineligible for service.	Explain the criteria for eligibility, and tell client of services available to those who are not eligible for manpower programs.

Tasks	Problematic Responses	Strategies
	d. Client ability factors i. Client does not possess required documents such as Social Security card.	Defer the issue until arrangements can be made for client to apply for a new Social Security card, and go on to other items.
	2. Client seems to be fabricating his answers to fit what he thinks intake worker wants to hear. a. Situational factors i. Intake worker seems to inquire more about failure experiences and problems than about client's successes.	a. Inquire about things the client feels he has done well. b. Confront client gently with the need to deal with problems that might interfere with future placement successes.

PHASE: INTAKE (continued)

Objective C: Refer client to next appropriate phase of service.

Tasks	Problematic Responses	Strategi
1. Refer client to counseling.	1. Client fails to keep appointment because:	
	a. Situational factors	
	i. Client must wait for indeterminate amount of time in dull waiting room.	Introduce cli counselor imm ask counselor definite time and suggest t client to do ing room.
	b. Interest factors	
	i. Client does not enjoy talking about self to strangers.	Show client a of another cl his vocationa with a counse
	c. Expectancy factors	
	i. Client expects counselor to be disciplinarian like high school counselors.	Tell client w is for, what to counselor, counselor wil counseling.
	d. Ability factors	
	i. Client cannot be at	Schedule even

ntinued)

Refer client to next appropriate phase of service.

Problematic Responses	Strategies
1. Client fails to keep appointment because:	
a. Situational factors	
i. Client must wait for indeterminate amount of time in dull waiting room.	Introduce client to counselor immediately, ask counselor to make a definite time appointment, and suggest things for client to do in the waiting room.
b. Interest factors	
i. Client does not enjoy talking about self to strangers.	Show client a short film of another client discussing his vocational interests with a counselor.
c. Expectancy factors	
i. Client expects counselor to be disciplinarian like high school counselors.	Tell client what counseling is for, what to talk about to counselor, and what counselor will do in the counseling.
d. Ability factors	
i. Client cannot be at	Schedule evening hours when

Tasks	Problematic Responses	Strategies
	the agency at the time scheduled, because cannot afford babysitter.	client's mother will be home from work to take care of baby.

PHASE: EMPLOYABILITY DEVELOPMENT PLANNING

Objective A: Jointly adopt a statement of employment objectives.

Tasks	Problematic Responses	Strategie
1. Administer vocational interest and aptitude tests.	1. Client does not keep appointment for testing because:	
	a. Situational factors	
	i. Tests are administered by a staff member the client has never met and with whom he has no rapport.	Counselor with the client has working starts client off on ing and then t client that te istrator will as his surroga
	b. Interest factors	
	i. Client feels that he has sufficient knowledge of interests and abilities without tests.	Accept client' of interests, if he'd like t out by tests t there are othe and aptitudes know about.
	c. Expectancy factors	
	i. Client assumes he will fail on tests as he has done before.	At time of re testing, let a "sample" of which he is l well, and giv feedback on h

LITY DEVELOPMENT PLANNING

Jointly adopt a statement of employment objectives.

	Problematic Responses	Strategies
ional itude	1. Client does not keep appointment for testing because:	
	a. Situational factors	
	i. Tests are administered by a staff member the client has never met and with whom he has no rapport.	Counselor with whom the client has been working starts the client off on the testing and then tells the client that test administrator will take over as his surrogate.
	b. Interest factors	
	i. Client feels that he has sufficient knowledge of interests and abilities without tests.	Accept client's statement of interests, and ask him if he'd like to check it out by tests to see if there are other interests and aptitudes he does not know about.
	c. Expectancy factors	
	i. Client assumes he will fail on tests as he has done before.	At time of referral for testing, let client take a "sample" of a test on which he is likely to do well, and give supportive feedback on his performance.

Tasks	Problematic Responses	Strategie
	2. Client does not seem to be putting maximum effort into his test performance because: * * * * * * * * * * * * * * * * * b. Interest factors i. Client does not believe that test performance relates to any kind of work he might get.	Tell client th is a differenc placement X a Y, and that th will help clie which of the ments would ma particular ski

Problematic Responses	Strategies
2. Client does not seem to be putting maximum effort into his test performance because:	
* * * * * * * * * * * * * * * * * *	
b. Interest factors	
i. Client does not believe that test performance relates to any kind of work he might get.	Tell client that there is a difference between placement X and placement Y, and that the tests will help client decide which of the two placements would match his particular skills better.

PHASE: TRY-OUT AND IMPLEMENTATION OF EMPLOYABILITY DEVELOPMENT PLAN

Objective A: Client reaches goals established by EDP according to the t
or client goals and/or timetable are revised and client re
revised goals.

Tasks	Problematic Responses	Strategie
1. Conduct orientation group for clients who are almost job ready but lack skills in adapting to new work and social situations (e.g., job interviews)	1. Client angry and hostile to group leader, and disrupts group because: a. Situational factors i. Client is completely job-ready and work experienced, but was put in orientation to "hold" him while placement section searches for an appropriate opening.	Tell client tha ment to orienta only a mechanis keeping him qua for MDTA pay a while a job is and ask him to experience to in the group wh job-ready.
	* * * * * * * * * * * * * * * * *	
	c. Ability factors i. Client gives ineffective responses to mock job interviewer.	Have more exper client demonstr answers to same and then have imitate him unt does as well as demonstration.

AND IMPLEMENTATION OF EMPLOYABILITY DEVELOPMENT PLAN

: Client reaches goals established by EDP according to the timetable, or client goals and/or timetable are revised and client reaches revised goals.

Problematic Responses	Strategies
1. Client angry and hostile to group leader, and disrupts group because:	
a. Situational factors	
i. Client is completely job-ready and work experienced, but was put in orientation to "hold" him while placement section searches for an appropriate opening.	Tell client that assignment to orientation is only a mechanism for keeping him qualified for MDTA pay and allowances while a job is being developed, and ask him to use his work experience to help others in the group who are less job-ready.
* * * * * * * * * * * * * * * * *	
c. Ability factors	
i. Client gives ineffective responses to mock job interviewer.	Have more experienced client demonstrate better answers to same questions, and then have client imitate him until client does as well as the demonstration.

Tasks	Problematic Responses	Strategies
2. Teach client to measure with a ruler as part of institutional training in woodworking skills.	1. Client shows up to class late, thus, missing important instruction, because: a. Situational factors i. Class atmosphere is similar to that client experienced in public school, in which he was treated as stupid. b. Interest factors i. Client does not see how promptness to training has any relation to how well he learns woodworking.	Coach carpentry into role of te expert-consulta than authoritar Explain to clie relevance of th is missing, and contract to red by half in next zero in the wee using reduction of training as

	Problematic Responses	Strategies
to a ruler stituting in kills.	1. Client shows up to class late, thus, missing important instruction, because:	
	a. Situational factors	
	i. Class atmosphere is similar to that client experienced in public school, in which he was treated as stupid.	Coach carpentry instructor into role of technical expert-consultant rather than authoritarian teacher.
	b. Interest factors	
	i. Client does not see how promptness to training has any relation to how well he learns woodworking.	Explain to client the job relevance of the work he is missing, and set up a contract to reduce lateness by half in next week and zero in the week after, using reduction in length of training as incentive.

PHASE: PLACEMENT

Objective 5: Relevant information about the client and the placement is pa
on to the follow-up worker, for use in monitoring client beha
in the placement, and intervening in problematic situations.

Tasks	Problematic Responses	Strategies
1. Summarize previously developed assessment data (e.g., observations of client behavior in previous phases, intervew data, tests, instructor's ratings, etc.) concerning likely client behaviors on the job in which he is placed, and transmit to follow-up coach.	1. Client refuses to meet with coach and tries to prevent foreman from meeting with coach because: * c. Expectancy factors i. Client believes that information about his previous record will prejudice company against him.	Conduct a joint with client, coa counselor to agr what information client should be able to coach ar and why (i.e., w situations migh which client may in responding m than he has in situations in t
2. Introduce client to follow-up worker assigned to client.	1. Client hostile to follow-up worker because:	

Relevant information about the client and the placement is passed on to the follow-up worker, for use in monitoring client behavior in the placement, and intervening in problematic situations.

Problematic Responses	Strategies
1. Client refuses to meet with coach and tries to prevent foreman from meeting with coach because:	
* * * * * * * * * * * * * * * * * * * *	
* * * * * * * * * * * * * * * * * * * *	
c. Expectancy factors	
i. Client believes that information about his previous record will prejudice company against him.	Conduct a joint meeting with client, coach, and counselor to agree on what information about the client should be made available to coach and to foreman, and why (i.e., what work situations might develop in which client may need help in responding more effectively than he has in similar situations in the past).
1. Client hostile to follow-up worker because:	

Tasks	Problematic Responses	Strategies
	* * * * * * * * * * * * * * *	
	b. Interest factors	
	i. Client wants to graduate from the role of being "protected" by someone else, and believes he should be allowed to try himself out on his own.	Agree not to use up coaching at th place if client w agree to meet wit newly placed clie group meeting to and share experie number of times.

Problematic Responses	Strategies
* * * * * * * * * * * * * * *	
b. Interest factors	
i. Client wants to graduate from the role of being "protected" by someone else, and believes he should be allowed to try himself out on his own.	Agree not to use follow-up coaching at the work place if client will agree to meet with other newly placed clients in a group meeting to discuss and share experience, X number of times.

PHASE: FOLLOW-UP

Objective A: Confirmed placement after X months of successful placement.

Tasks	Problematic Responses	Strategie
1. Keep client on the job by periodic checking with client and foreman about performance.	1. Company reports that client has to be fired for insubordination.	(See Gordon and Placement and
2. Maintain client's interest in the new job.	1. Client complains about how boring the work is because: a. Situational factors i. Client's friends are unemployed and attract him to quit by telling him of fun they have while he is at work.	Introduce clien young black emp the company and the development company friends to balance the neighborhood fr
3. Maintain client's attendance at work.	1. Client skips several days of work because of drunkness, because: a. Situational factors i. Client's wife has been hassling him about spending too much of paycheck on after-work drinks with co-workers.	Get client to a referral to fam agency to work to family probl

W-UP

e A: Confirmed placement after X months of successful placement.

	Problematic Responses	Strategies
n the lic client bout	1. Company reports that client has to be fired for insubordination.	(See Gordon and Erfurt: Placement and After).
nt's he	1. Client complains about how boring the work is because: a. Situational factors i. Client's friends are unemployed and attract him to quit by telling him of fun they have while he is at work.	Introduce client to other young black employees at the company and encourage the development of in-company friendship group to balance the pull of neighborhood friends.
nt's	1. Client skips several days of work because of drunkness, because: a. Situational factors i. Client's wife has been hassling him about spending too much of paycheck on after-work drinks with co-workers.	Get client to agree to referral to family service agency to work out solution to family problems.

C. Evaluation of the Behavior-in-Situations System

It is clear from the foregoing that we do not have anything like a complete systems approach, and that a great deal of development work would be needed to firm up the system, resolve ambiguities and inconsistencies, etc. The intention was to indicate what a systems approach to a taxonomy might look like. Based on this example, it is possible to discuss the approach by reference to criteria relevant to an evaluation of taxonomic models.

Reliability

In a well designed system, the emphasis is placed on outcomes, and procedures are varied, depending on circumstances, in order to achieve predictable outcomes. Through monitoring and feedback to accountability units, relatively similar outcomes are produced by different accountability units, thus insuring system reliability. An important feature of the approach is that feedback is built in so that modifications can be introduced when specific procedures lead to undesired results under specific conditions. That is, in the systems approach, the objective remains constant while methods are permitted to vary - a reversal of the usual pattern in service delivery agencies.

Another aspect contributing to reliability of a systems approach is that the client characteristics identified are relatively superficial, and closely tied to the behavioral level. It is therefore not necessary to rely excessively on tests of inherently low validity,* or to make inferences more

*As noted earlier, many manpower agencies no longer use tests, or administer them only to satisfy pro forma requirements. One result of not really using tests is that they therefore proceed without <u>any</u> useful assessment information. The approach recommended here should result in <u>greater</u> use of relevant assessment data than is usually the case where the reliance on tests allows staff to ignore or underuse the behavioral assessment data that it could collect systematically.

complex than those which agency staff can readily make. Most of the interest, capability, and expectancy factors can readily be checked with a reasonable amount of objectivity. Finally, reliability is increased by the restriction in predictions; when a system is constructed around characteristics which inhibit achievement of specified stage objectives, with no implication that the same characteristic (or some underlying trait) has value for predicting other objectives of other stages, the problem of reliability is sharply attenuated.

The approach here does not abandon assessment; rather, it shifts the emphasis from the attribution of traits by tests, observations, and other relatively unreliable means, to what has come to be called behavioral assessment (Kanfer and Saslow, 1965, 1969). The essential principles of behavioral assessment are that behaviors of individuals are associated with the situations in which they occur, and their consequences. Those which have negative consequences (i.e., fail to achieve the objective of the process phase) are labeled problematic behaviors, which may be changed by a variety of techniques (counseling, role playing, behavior modification, instruction, etc.), including changing the situation with which they are associated. By changing the elements in the situation to which a problematic behavior is a response, the behavior is reduced or eliminated, and therefore does not interfere with achievement of the objective.

Thus behavioral assessment consists of identifying those behaviors of individuals which occur in one or another of the process phases, and evaluating the behavior by reference to its effects on achieving the objective of the phase. The product of such behavioral assessment is a decision on whether and how to intervene so that progress toward the objective is maintained or facilitated.

Usability

A systematic behavior-in-situations approach to a descrip-

tion of manpower agency clients appears likely to be quite usable by manpower agency staff. It requires no expensive equipment, no scarce skills, and no large body of technical knowledge. Its emphasis on surface behavior puts it in the range of concepts and labelling processes commonly employed by manpower workers, making adoption of such a scheme not too difficult. Further, agency effectiveness may be enhanced by the close linkages between the elements of the taxonomy and the language of intervention actions (e.g., it is easy to know what to do when a client is prevented from reaching the objective of intake because he cannot fill out a form, or lacks transportation to the agency, or avoids revealing himself to a mistrusted interviewer).

Practicality

Contrary to the widespread belief that system approaches ignore personal needs and strivings, it is possible to individualize goals and objectives so that system components are designed to meet individual requirements and needs (Krunboltz, 1966), as in behavioral counseling. Because systems can be designed to take into account individual goals and objectives and their attainments, this is one approach that could handle much of the criticism of the overstandardization in manpower programs which stems from making techniques invariant for specified "types" of "disadvantagement." The practicality of the systems approach as a taxonomy is based upon a system of classification of behaviors in situations where attention can be focused immediately on manpower clients' needs without requiring assignment of clients to conceptual categories of "types of people."

Ethicality

In contrast to the invasion of privacy issue associated with psychological tests, the ethical issue raised by the systems approach is the charge that it could be used to manipulate clients toward goals which are incompatible with their

values. However, this problem can be controlled by a requirement that clients explicitly agree to a "contract" which specifies goals and means. When compared with the depth psychological approaches that focus upon antecedent experiences, the systems approach deals in the situational "here and now," and includes explicit agreements with clients regarding objectives and roles. The system does not rule out the possibility that client agreement to a "contract" can be coercively influenced; this remains a danger (which is also present in other approaches) which requires supervision and other fail-safe mechanisms to minimize.

Efficiency

The efficiency of the approach relies upon dealing only with those factors in the clients and agency that are relevant to training and employment. A critical analysis to determine those relevant factors, it seems, would result in savings in manhours wasted in activities irrelevant to the goals of training for employment and to client needs vis-a-vis those goals. Efficiency of this sort is suggested by the recent experience of the Minneapolis Vocational Rehabilitation Center; over a twelve week period that agency increased from achieving 30% of its objectives to achieving 70%, with a net cost reduction of $58 per client. This efficiency was obtained when the agency established system objectives, gave its staff latitude in the techniques used to deal with client factors which inhibit achievement of the objectives, and gave staff weekly feedback on the extent to which they were achieving their objectives.

When the approaches reveiwed in this report are evaluated against the criteria for a taxonomy of disadvantagement, it appears that the systems approach has the potential for satisfying the criteria. Further, the structure of ES activities is quite consistent with a systems approach in some important respects: the Employability Development Plan (EDP)

for each enrollee, which serves as both a statement of objectives and a "contract" with the enrollee, and the ED team organization are elements that would fit readily into a systems concept if appropriately developed. Pending decategorization of program options and decentralization would also facilitate the approach of disadvantagement described in this chapter.

CHAPTER IV

The Role of Assessment in the Proposed Model

The approach taken in this report assigns two general functions of assessment: 1) description of person/situation interactions; and 2) prediction of person/situation interactions.

The descriptive function largely refers to those behavioral characteristics of clients which interact with characteristics of the manpower agency process to determine whether or not the client will achieve subobjectives which serve as way-stations to the ultimate objective of stable placement.

The predictive function largely refers to those characteristics of clients which interact with characteristics of placement situations to determine whether or not the client will achieve a stable employment career. As this kind of interaction occurs outside the manpower agency, and usually after the client has left the agency, it is an interaction which the agency can only infer in advance: i.e., predict.

A basic problem is that interaction descriptions within and during the agency process cannot serve as bases for the predictions which the agency must make in its placement decisions. As indicated earlier, the lack of relation between client behaviors observed within and during the agency process and those which occur in the placement setting results from the fact that the behaviors occurring in these two settings are responses to variables which differ between the two settings. That is, the activities required of clients in the agency are different from those required in a placement setting, the incentives are different, and the social situations are different, so that client interest, capability, and expectancy are likely to differ between the agency and the placement setting. Thus predictions of behavior in the latter

context cannot be reliably based on descriptive analysis of the behaviors which occur in the former setting.

This problem of the lack of similarity between the manpower agency and the placement setting as behavioral contexts can be illustrated by a common problem in employability development programs. It often happens that a client is placed in a particular program option (e.g., institutional training) in order to learn a specific set of work skills, but that within that option there are formal demands and characteristics which are irrelevant to that objective. For example, institutional skill training involving extensive periods of classroom work places a demand on the client which is different from the kind of demands that might be placed on him by the nature of the job itself. Thus the question becomes one of whether or not the client can survive the program option's routes to its objective, quite without regard to whether he has the skills and aptitudes for performing on the job for which he is being trained. In short, one set of factors to be considered in making decisions among program options is the interaction between client behaviors and those of the routes available to the objective of each of the program options. When the predicted or observed interaction is one that reduces the probability that the client will achieve the objective of the option, the manpower agency's intervention efforts may be directed at modifying either the client or the situation characteristics, or both.

The other set of factors to be considered are those situational factors in a particular job placement (or in a particular industry) with which clients interact differentially, and which influence the probability that clients will use their skills in meeting the demands of the work itself. That is, there are situational factors in employing establishments, beyond the specific job skill demands, which interact with client characteristics in affecting the probability that the client will remain on the job. There is a great deal of

evidence that manpower agency clients are more likely to lose (or not get hired onto) jobs because of such situational interactions than because of inability to perform the work itself.

Both sets of situational factors (those characterizing the routes to the objectives of program options and those characterizing work places) should be considered when manpower agency staff make assignments of clients on the basis of predictions of probable outcomes of the assignment. It is clear from experience that quite often, these situational characteristics are either not taken into account, or enter only informally into the decision-making process.

However, if situational factors are to be taken into account systematically, there must be available both a taxonomy of situations and a knowledge of client characteristics which interact positively and negatively with the variables of that taxonomy. At present, we do not know what features of a work or a training place (e.g., type of supervision, personal-impersonal relations, etc.) interact with which client characteristics (e.g., satisfiers and dissatisfiers) to affect the probability that the client will remain in the work or training place.

Behaviors in <u>both</u> agency and employment settings are the products of the interaction of individual differences among clients with characteristics of the settings. Thus a taxonomy of <u>behaviors</u> requires a taxonomy of individual differences and of situations.

This view of assessment may be summariezed by a four-fold table, which describes the four different kinds of variables which must be assessed:

	Within and during the agency process (i.e., to be analytically described)	Outside of and after the agency process (i.e., to be predicted)
A taxonomy of situations	A	B
A taxonomy of individual differences	C	D

Cells A and C

Chapter III of this report presents an armchair analysis of some of the variables in cells A and C. The major point of that chapter is that the variables in cell A can be readily identified, from a systems point of view, as the stages of client processing within the agency: outreach and recruitment, intake, try-out and implementation of employability development plan, placement and follow-up, with the service tasks carried out in each of these stages as further descriptors in the taxonomy of situations. Use may also be made of Haggard's systematic task analysis of employability development team member activities, to provide further specifications of the inputs made to clients by agency staff members; such staff inputs are, from the client's point of view, features of the agency setting to which he responds.

Some of the variables of cell C were also described in that chapter, based largely on the operational experience of manpower programs. However, it is clear that there is need for a much more systematic study of client factors of interest, capability, and expectancy, if manpower workers are to know what to look for (i.e., assess) as likely inhibitors of goal achievement, so that the variables in cell A (the only ones directly under the control of the agency) can be adjusted in order to achieve the objectives. We believe that a critical

incident study such as that which led to the manual Placement and After, would be a productive and effective way of specifying the variables in cell C. An important virtue of such an approach is that it describes variables at a level sufficiently close to concrete behavior to be readily useful to manpower workers. It is also efficient in that it can be restricted to only those variables which inhibit goal achievement within the agency situation, thus avoiding an overly elaborate theoretical system which goes beyond the needs of the manpower system.

To summarize, further research is needed to provide the knowledge for assessment of cell C variables, while cell A variables are situational givens whose main components may be assessed reasonably well by job analysis methods.

Cells B and D

The predictive function of assessment, as described by cells B and D, is more problematical. The history of the psychological testing movement is one of efforts to specify the variables of cell D. Within the agency process, this predictive assessment of individual differences falls at the third phase, when the agency attempts systematically to collect data on individual differences, largely through tests, to be used in developing an employability plan with the client. Usually, this assessment is directed at predicting client success in various placements. The problems in using tests so as to yield trustworthy predictions of the interactions between some kinds of people (i.e., the poor, minorities, the ill-educated members of ethnic subcultures, etc.) and placement settings are by now well known, and were cited in Chapter II of this report.

There are some elements of a cell B taxonomy which have been developed. From one point of view, all of the work in job analysis and description can be seen as an effort to specify aspects of placement situations with which clients

interact. In this respect, the DOT is a taxonomy of placement situations.

However, the experience of manpower agencies is that most placement failures are not the result of inability to carry out work tasks. Rather, they seem to result from the interactions of a variety of client behaviors with structural and interpersonal features of placement settings beyond or outside work task demands.

We lack a taxonomy of these structural and interpersonal features, although the literature abounds with research on a myriad of organizational variables, such as hierarchy, span of control, personal/impersonal supervision, routinization, etc. This literature, however, is so chaotic that it would be difficult to abstract from it, with any confidence, a coherent set of variables which are likely to be the significant ones which enter into interactions with client characteristics to determine placement success.

There are some new empirical methodologies available for developing a taxonomy of placement situations. One set of methods is described by Frederiksen (1972). In these methods, the assumption is made that consistency in the behavior of different people can be taken as an indicator that the situations they are in have a common factor. Thus, if various clients respond in the same way to a variety of placements, those placements may be assumed to contain a common factor, which is different from the factor underlying other situations in which the same clients behave differently. Factor analytic methods may therefore be used to identify the dimensions underlying various placement situations associated with specific responses of clients.

A related methodology is that employed by the Colorado State University Manpower Laboratory to identify significant dimensions of employment settings. Their O-Type analysis results in a set of factors which describe characteristics of companies presumed to have significant impact on clients

placed in them. The O-Type analysis may be somewhat less efficient than the Frederiksen methods, because it does not include intrinsically only those variables which discriminate among client responses to the situations. Nevertheless, O-Type analysis does provide a taxonomy which further research may relate to client response to placements.

In summary: further assessment research and development is needed to implement the taxonomic model recommended in this report. Specifically, there is need for an empirical basis for identifying client characteristics which interact with agency process stages (cell C), and for development of a taxonomy of the relevant features of placement situations (cell B) to be related to the individual difference variables of cell D.

CHAPTER V

Organizational Structure for Individualization

Throughout this report an effort has been made to eradicate the boundary between the "disadvantaged" and "nondisadvantaged" by concentrating instead on client characteristics which, although more likely to be found in the former than the latter groups, are more salient to manpower agency operations and objectives than is group membership per se. An implication of this tactic is that manpower agencies may operate on an open-door basis, without the counter-productive invidiousness of separating disadvantaged from nondisadvantaged.

We have also emphasized those client and situational characteristics which are modifiable or "intervenable," in the sense that once a worker has identified factors in a particular client/situation interaction which interfere with achievement of objectives, there are actions of a concrete and immediate nature which can be taken, through inputs to the client or through adjustment of factors in the situation, to yield the desired outcome of the interaction. In this sense, we have striven for a scheme which is practicable and practical.

The key concept here is the feedback loop, in which the client's progress toward objectives is closely monitored, and steps are taken to regain the path when the interaction goes off target.

Such a feedback loop requires both a mechanism for sensing off-target behavior, and a mechanism for taking corrective action. The previous chapter, on Assessment, may be thought of as one which is concerned with sensing mechanisms which supplement the experience, knowledge, and sensitivity of manpower agency workers. In this chapter we address ourselves to some factors affecting the organization's ability

to take corrective actions.

Two crucial factors have highest priority. The first is a system of providing accountable agency workers with close feedback on client progress toward subobjectives, for monitoring purposes. While this kind of feedback may use printed records and forms, the daily need for monitoring and feedback may be interfered with by elaborate record-filing and processing which becomes too cumbersome to return information directly and immediately to those manpower staff members whose roles require them to take actions vis-a-vis the client/situation based on the feedback information.

The second factor is sufficient flexibility and discretion permitted to accountable workers for them to take appropriate and relevant actions based on the feedback information. In this system, achievement of stage objectives is the main structural requirement, while the techniques, strategies, and processes which may be implemented to satisfy that requirement are permitted to vary, depending on the client/situation. This factor implies that responsiveness to client/situation needs requires independence and control over techniques and resources by agency workers.

The advantages to clients and agency of maximizing these factors are suggested by the Minneapolis Vocational Rehabilitation Center, cited earlier in this report, where the provision of feedback to workers on a weekly basis resulted in a dramatic increase in goal achievement by the agency. It is of some interest to note that initial impressions from an attempt to build the same system into a WIN program are not as successful, apparently because neither workers nor the manager have sufficient independence and control over techniques and resources to take the kinds of actions needed to bring a client back on course, and to make workers accountable for achievement of client objectives.

It is worth stressing the point, because the usual view

of a systems approach is that it is rigid, reduces staff options, and puts clients into a lockstep that ignores individual differences and needs. While engineering systems do often function in this manner, such rigidity is not necessarily intrinsic to the systems approach. TRW, Inc. is an example of a larger organization which combines both monitoring of objectives and a wide range of discretion permitted to staff. Routinization or predictability of the work to be done is the operative variable which discriminates between organizations for which a rigidly controlled system is appropriate, and those for which an objectives-oriented system with worker discretion is appropriate. Where the work to be done contains a great deal of variability (e.g., differences among clients), a flexible organization is more appropriate than one in which all worker performances are standardized (see Litwak, Rothman, et al., 1972 for a complete discussion of the evidence on the relationship between task uniformity and organizational structure). Where the work to be done contains a great deal of variability, formalization of rules (Hage and Aiken, 1970), a high degree of specialization of worker roles, lack of participation of staff in management decisions (Palumbo, 1969), and centralization (Hage and Aiken, 1967, 1968; Lyden, 1969) have been found to be associated with lower flexibility. A corollary of this general viewpoint, that it is the lower level workers (i.e., those who work directly with clients) rather than supervisors, who need the freedom to make novel decisions, is supported by a study by Walter (1966) who found that it was lower level workers who are more directly in touch with and influenced by the way in which the organization interacts with its environment (e.g., clients), and therefore most called upon to go beyond existing rules.

In short, the research is clear that responsiveness to variable inputs to an organization which must meet specified objectives requires decentralization, worker autonomy, absence of procedural rules, generalized rather than specialized roles,

and a flattened hierarchy of authority.

It requires unremitting effort to develop and maintain this kind of flexibility within the context of firm goals and accountability. The primacy of the objectives has an imperialistic tendency: those responsible for monitoring and enforcing goal achievement have a strong tendency to branch out into specifying not only the objectives but also the methods through which the objectives will be achieved. Such imperialism of control operates against the flexibility which workers need in order to respond appropriately to those variations in client/situation events which threaten goal achievement.

Unremitting maintenance efforts are also required because there are so many different forces which tend toward formalizing and routinizing the problem-solving activities of workers: the development of professional norms regarding how things are done, authoritarian supervision, substituting quantity of services for quality, competition among staff role specialists for dominance, requirements for clearances and permissions for carrying out needed interventions, are all forces which incline toward standardization of activities, thus reducing the range of options available to workers for responding to those client/situation events which inhibit attainment of objectives.

If workers are to have sufficient range of discretion, they will also need to participate actively in the flow of communications to manpower agency resource providers, and to those in charge of centralized activities which affect their work but over which they have no direct control. For example, if radio and newspaper advertising is handled by a central office of the manpower agency system, but is operating in such a way as to inhibit responses (e.g., by not addressing potential client expectancies), line workers who become aware of this problem need to be able to initiate communications with those in charge of the advertising, on a routine basis, rather than

as a rare event, only to be used when things get real bad.

In summary, the organization of manpower services required for effective implementation of the scheme recommended in this report is one which is decentralized to the local office level, and may be described as based on a professional rather than a bureaucratic model. Such decentralization includes decategorization of services (and a general reduction in the number of procedural rules), rapid and informal communication within the feedback loop, generalized rather than specialized roles, flattened hierarchy, participation in decision-making, emphasis on quality of service, and an upward flow of communications - all constrained by a centralized monitoring of standards for the achievement of agency objectives.

CHAPTER VI

Recommendations and Suggestions for Further Study

Further work and development is needed to complete the taxonomic model that is suggested in this report. Additional work is needed to develop specific techniques for working successfully in each phase. It is understood that the phases that are outlined in this report may not be readily identifiable in all agencies. However, it is our belief that the sequence as outlined represents a desireable flow of agency functions within most manpower agencies. Identification of a given phase and its objectives is simply not enough to direct a worker toward specific techniques of working effectively with a client in that phase. Knowledge of the objectives and the dimensions of the task to be performed represents only the beginning stages for the workers. Specific procedures are yet to be developed and conceptualized.

While it may not be feasible to work out a detailed step-by-step plan for workers, it does appear that a procedural frame of reference relating to each phase that allows a worker the opportunity to select from a source of viable alternatives might provide some possibilities for future directions.

A. Role Specification

There is also a need to specify various roles as they relate to each function in this model. Since different persons do different things and often the same person does many different things, it would seem appropriate to assess various role assignments within agencies and attempt to clarify role responsibilities as they relate to the model. While each phase or function tentatively suggests a particular professional role (i.e., follow-up = job coach), there remains the question of whether the model lends itself to discrete or continuous role functions. That is, should a client have contact with different workers for each function or should a single worker follow a client from intake to follow-up?

B. Training for Manpower Staff

The workability of this scheme is highly dependent upon the development of training programs that are consistent with the variables that are advocated in this scheme. It is quite clear that university programs at the present time are not geared in this direction. If workers are not trained in the procedures that are outlined here or similar ones, than we only perpetuate existing models in spite of current efforts. The suggestion here is to make some attempt to institute specific training procedures before assignment of manpower workers. In this way new workers will be able to bring new ideas into existing programs; this, in turn, may allow workers to adapt better to new and different programatic procedures.

C. Development of the Behavior-in-Situations Scheme

Other development needs required by the proposed model include:

1. a more detailed study of the outcome objectives of each process phase, in order to arrive at more precise statements and to develop criteria for judging whether an objective has or has not been achieved.

2. a survey of client responses within each process phase, effectiveness/ineffectiveness ratings of the responses, and cross-validation against the criteria for goal achievement in each phase.

3. critical incident study to identify successful interventions associated with each major group of ineffective client responses, cross-validated against actual goal achievement by the clients receiving the actions.

D. Research on Utility of Predictions of Success and Failure

Among the reasons for recommending the approach taken in this report is our low evaluation of trait test-based taxonomies. To some extent, that evaluation rests on our subjective estimates of the positive and negative utilities of correct and incorrect predictions from test scores. We

believe it would be a valuable service for the Department to sponsor research which seeks evidence on the values that clients attach to various outcomes of test use. For example, it is possible, with existing research methodologies, to discover whether clients attach less negative value to a failure outcome based on the client's own selection decision than to failure outcomes based on the agency's test-based selection decision (i.e., compare the false positives based on self vs. test selection for impact on the client). Such a study should have practical application to the principle of client-selected level of service vs. agency screening and differential assignment by agency staff.

In the same vein, it should also be possible to compare the costs (negative utilities) to a client of failing at a job he was predicted to succeed on vs. the costs to a client of not being referred to the job (i.e., compare values associated with false positives vs. false negatives). The outcomes of such studies would support or invalidate our view that predictive errors in testing are highly damaging to clients, and that exclusionary errors are more damaging than inclusionary errors.

To carry the matter further, the values associated with positive outcomes can also be empirically measured, to test our judgment that the gains usually ascribed to correct predictions (i.e., true positives and true negatives) are indeed smaller than many people in the field imagine, and are smaller than the negative values associated with predictive errors.

In short, we recommend a thorough study of the impact on clients of test-based decisions, in order to arrive at an empirically-based judgment regarding the true utility of test-measured traits.

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